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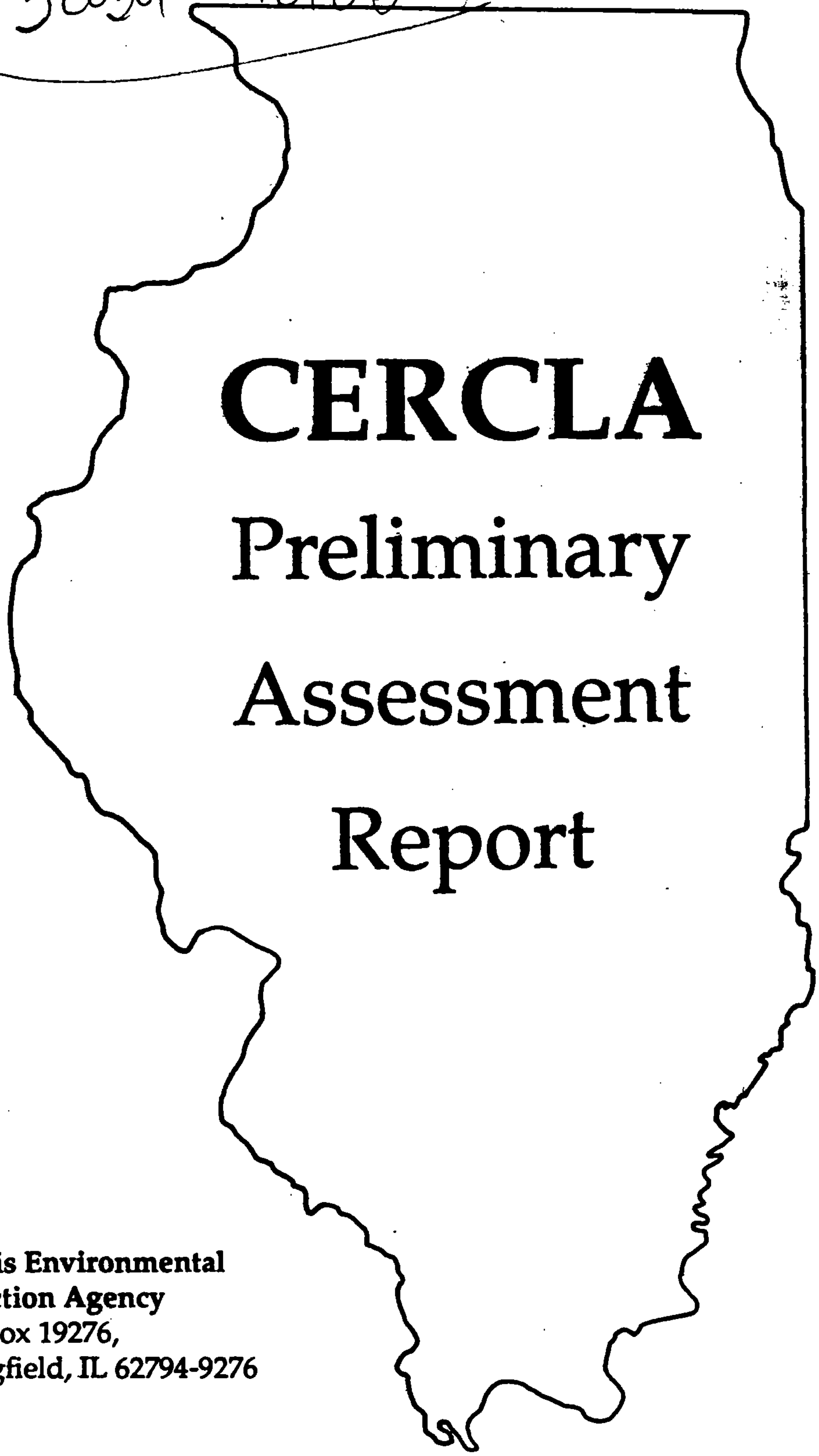
Specify Type of Document(s) / Comments:

L0310000000--Cook
Lake Salvage Company
ILD076875285

00001

5E0301-AD102

1/6/89



CERCLA

Preliminary Assessment Report

Illinois Environmental
Protection Agency
P.O. Box 19276,
Springfield, IL 62794-9276

L0310000000 -- Cook County
Lake Salvage Company
ILD076875285

EXECUTIVE SUMMARY

The Lake Salvage Company operated a wire reclamation incinerator from 1976 until 1986. This incinerator was used in an effort to recover copper from copper-bearing scrap by burning off the insulation on scrap wire.

Lake Salvage utilized a RCF Model 8001 incinerator. At the beginning of the process, heavy cable and house wire was placed in the primary chamber where it was ignited by natural gas. Once the wire started burning, these burners were turned off. The gas given off from the primary chamber flowed to the secondary chamber. Between the primary and the secondary chambers, the incinerator was equipped with a water spray to cool the gas and help remove fly ash particles. However, it was the practice of the operator to rarely utilize this feature.

Once the gas entered the secondary chamber, the two secondary burners provided additional treatment. The primary and secondary burners were operated on average with the heat input of 450,000 BTU/hr. and 900,000 BTU/hr., respectively. The gas flowed from the secondary chamber to the after burner where the flue gas was treated by the heat input of approximately 450,000 BTU/hr. No temperature monitoring device existed on the incinerator.

Following the incineration of the insulation on the wire, the wire was removed from the primary chamber and stored on-site. After removal from the primary and secondary chambers, it was disposed of as general refuse at a municipal landfill.

The incinerator was operated five days a week depending upon the availability of wire. The average load according to the operator was approximately 500 lbs./load.

The Lake Salvage Company applied for a construction permit from IEPA to build their incinerator on July 29, 1974. This permit was granted by the Division of Air Pollution Control on August 26, 1974. On August 11, 1976, the Agency granted Lake Salvage a permit to operate the incinerator. The permit was designated ID #031600 EPK/Permit No. 06020275. This permit was subsequently renewed on March 16, 1981 and April 23, 1986.

In September 1986, Lake Salvage closed due to lack of business and the poor health of the owner.

On April 15, 1987, ash and soil samples were collected at the Lake Salvage site as part of an incinerator study commissioned by the IEPA and conducted by representatives of the Radian Corporation.

The following table lists the results of the April 15, 1987 samples.

	ASH SAMPLE	SOIL SAMPLE	
	Secondary Chamber	Storage Area	Incinerator Area
2378-TCDD	26.4	0.09	0.169
Other TCDD	83.5	0.72	0.53
12378-PCDD	60.6	0.25	0.334
Other PCDD	335	2.43	2.94
123478-HxCDD	92	0.32	0.478
123678-HxCDD	203	0.88	1.04
123789-HxCDD	192	1.04	0.808
Other HxCDD	863	6.27	6.83
1234678-HpCDD	1,285	9.59	9.6
Other HpCDD	672	7.76	7.2
OCDD	3,554	28.8	25.3
Total PCDD	7,385	58.1	55.3
2378-TCDF	2,264	2.58	21.9
Other TCDF	6,291	14.3	34.1
12378-PCDF	2,994	3.69	29.8
23478-PCDF	2,216	2.8	10.2
Other PCDF	6,283	12.7	33.1
123478-HxCDF	3,981	12.2	45.3
123678-HxCDF	[0.045]	3.88	11.6
234678-HxCDF	1,367	4.24	8.23
123789-HxCDF	1,100	0.61	11.5
Other HxCDF	1,352	13.9	12.7
1234678-HpCDF	3,198	27	51.5
1234789-HpCDF	3,544	6.56	25.8
Other HpCDF	3,272	11.5	28.3
OCDF	17,467	67.8	211
Total PCDF	55,328	184	535
Total PCDD and PCDF	62,713	242	590

Concentrations expressed in ng/g.
[ ] indicates the minimum detection limit for an undetected compound.

On June 8, 1987, the Agency informed the owners of Lake Salvage Company of the results of the April 15, 1987 sampling.

On June 28, 1987, the Agency sent the owners of Lake Salvage Company a Compliance Inquiry Letter requesting a Pre-Enforcement Conference to be held July 14, 1987. In addition, this letter requested that within ten days of receipt of the letter, the owners submit in writing that the site had ceased operations and the area had been secured.

On July 2, 1987, the owners of Lake Salvage informed the Agency that the business had closed in September 1986 and that the ignition burners and after burners would be dismantled and the area secured.

The Agency withdrew the operating permit on June 10, 1987. On August 9, 1988, Agency representatives conducted an off-site reconnaissance inspection of the site in an attempt to gain additional information and confirm Agency records.

The site is currently surrounded by a six foot fence which is constructed of various building materials. Barbed wire is strung on the top of the north wall. Entry to the site is possible at various points on the east and south walls due to holes in the fence.

During the reconnaissance inspection, the incinerator building and the smoke stacks were still in place, however, it was not possible to confirm the condition of the incinerator from off-site.

Scrap metal and general refuse were scattered all along the site. At the northeast corner of the incinerator, the soil appeared to be grey in color. There is a possibility that ash may still be present on-site.

During the April 15, 1987 sampling effort, it was noted that two transformers were on-site, however, no transformers were seen during the reconnaissance inspection.

The Lake Salvage Company is located in an economically depressed residential area with several small industries located nearby.

North of the site, the Chicago commuter train runs on elevated tracks above Lake Street. On the north side of Lake Street is the Pekay Machine and Engraving Company and the A. Messe and Sons, Plumbing and Heating Supplies.

East of the site, separated by a deteriorating wooden fence, is Mobley Auto Wreckers.

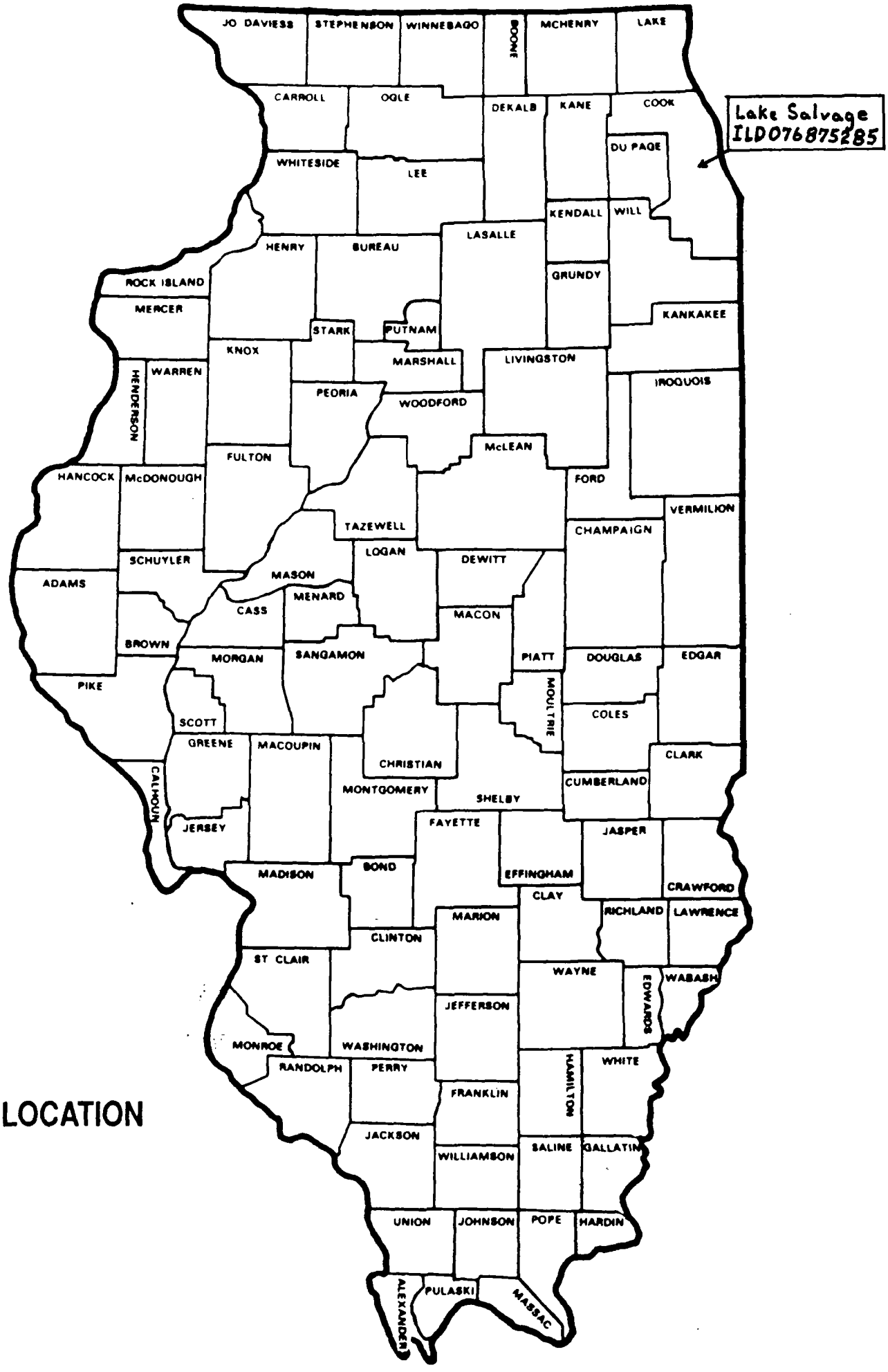
South of the site is owned by Industrial Adhesives.

West of the site is a residential area separated from the site by a railroad track.

At this time, the owner of the site is attempting to sell this property.

This site has been assigned a medium priority rating and is recommended for a site inspection.

GR:tk:4/32/29-1(9/7/88)



SITE LOCATION

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 1 - SITE INFORMATION AND ASSESSMENT

EPA

I. IDENTIFICATION
01 STATE: ILD | 02 SITE NUMBER: 076875285

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site)	02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER				
Lake Salvage Company	2527 West Lake				
03 CITY	**04 STATE**	**05 ZIP CODE**	**06 COUNTY**	**07 COUNTY CODE**	**08 CONG DIST**
Chicago	IL	60612	Cook	031	7
09 COORDINATES LATITUDE: 41 53 00.0	LONGITUDE: 087 41 20.0				

10 DIRECTIONS TO SITE (Starting from nearest public road)

III. RESPONSIBLE PARTIES

01 OWNER (If known)	02 STREET (Business, mailing, residential)			
Alex Simkin	2527 West Lake / 6531 N. Sacramento Ave			
03 CITY	**04 STATE**	**05 ZIP CODE**	**06 TELEPHONE NUMBER**	
Chicago	IL	60612	(312) TA9-8882	
07 OPERATOR (If known and different from owner)	**08 STREET** (Business, mailing, residential)			
Same	Same			
09 CITY	**10 STATE**	**11 ZIP CODE**	**12 TELEPHONE NUMBER**	
Same	IL	Same	( ) SAME	

13 TYPE OF OWNERSHIP (Check one)
☒ A. PRIVATE ☐ B. FEDERAL: _____ (Agency name) ☐ C. STATE ☐ D. COUNTY ☐ E. MUNICIPAL
☐ F. OTHER: _____ (Specify) ☐ G. UNKNOWN

14 OWNER/OPERATOR NOTIFICATION ON FILE (Check all that apply)
☐ A. RCRA 3001 DATE RECEIVED: ___/___/___ (MONTH DAY YEAR) ☐ B. UNCONTROLLED WASTE SITE (CERCLA 103 c) DATE RECEIVED: ___/___/___ (MONTH DAY YEAR) ☒ C. NONE

IV. CHARACTERIZATION OF POTENTIAL HAZARD

01 ON SITE INSPECTION
☒ YES ☐ NO DATE 8 9 88 (MONTH DAY YEAR)
BY (Check all that apply)
☐ A. EPA ☐ B. EPA CONTRACTOR ☒ C. STATE ☐ D. OTHER CONTRACTOR
☐ E. LOCAL HEALTH OFFICIAL ☐ F. OTHER: _____ (Specify)
CONTRACTOR NAME(S): _____

02 SITE STATUS (Check one)	03 YEARS OF OPERATION
☐ A. ACTIVE ☒ B. INACTIVE ☐ C. UNKNOWN	August 1976 (BEGINNING YEAR) / Sept. 1986 (ENDING YEAR) ☐ UNKNOWN

04 DESCRIPTION OF SUBSTANCES POSSIBLY PRESENT, KNOWN, OR ALLEGED
Organic Chemical (Toxic/Persistant)

05 DESCRIPTION OF POTENTIAL HAZARD TO ENVIRONMENT AND/OR POPULATION
Air Transportation of contaminent (Population)
Direct Contact (Population)

V. PRIORITY ASSESSMENT

01 PRIORITY FOR INSPECTION (Check one. If high or medium is checked, complete Part 2 - Waste Information and Part 3 - Description of Hazardous Conditions and Incidents)
A. HIGH (Inspection required promptly) ☒ B. MEDIUM (Inspection required) ☐ C. LOW (Inspect on time available basis) ☐ D. NONE (No further action needed, complete current disposition form)

VI. INFORMATION AVAILABLE FROM

01 CONTACT	02 OF (Agency/Organization)			03 TELEPHONE NUMBER
Alex Simkin	Lake Salvage Company			(312) TA9-8882
04 PERSON RESPONSIBLE FOR ASSESSMENT	**05 AGENCY**	**06 ORGANIZATION**	**07 TELEPHONE NUMBER**	**08 DATE**
Gary L. Reside	IEPA	Pre-Remedial Program	(217) 782-6760	9 6 88 (MONTH DAY YEAR)

EPA FORM 2070-12 (7-81)

EPA

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 2 - WASTE INFORMATION

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
ILD	076875285

II. WASTE STATES, QUANTITIES, AND CHARACTERISTICS

01 PHYSICAL STATES (Check all that apply)

- A SOLID
- B POWDER, FINES
- C SLUDGE
- D OTHER (Specify)
- E SLURRY
- F LIQUID
- G GAS

02 WASTE QUANTITY AT SITE (Measures of waste quantities must be independent)

- TONS
- CUBIC YARDS Unknown
- NO OF DRUMS

03 WASTE CHARACTERISTICS (Check all that apply)

- A TOXIC
- B CORROSIVE
- C RADIOACTIVE
- D PERSISTENT
- E SOLUBLE
- F INFECTIOUS
- G FLAMMABLE
- H IGNITABLE
- I HIGHLY VOLATILE
- J EXPLOSIVE
- K REACTIVE
- L INCOMPATIBLE
- M NOT APPLICABLE

III. WASTE TYPE

CATEGORY	SUBSTANCE NAME	01 GROSS AMOUNT	02 UNIT OF MEASURE	03 COMMENTS
SLU	SLUDGE			
OLW	OILY WASTE			
SOL	SOLVENTS			
PSD	PESTICIDES			
OCC	OTHER ORGANIC CHEMICALS			
IOC	INORGANIC CHEMICALS			
ACD	ACIDS			
BAS	BASES			
MES	HEAVY METALS			

IV. HAZARDOUS SUBSTANCES (See appendix for most frequently cited CAS numbers)

01 CATEGORY	02 SUBSTANCE NAME	03 CAS NUMBER	04 STORAGE/DISPOSAL METHOD	05 CONCENTRATION	06 MEASURE OF CONCENTRATION
	2,3,7,8-TCDD	1746016	Ash disposed of as general refuse in landfill. Concentrations in ash.	16.4	ppb
	1,3,7,8-PCDD			60.6	ppb
	1,2,3,4,7,8-HxCDD			98.0	ppb
	1,2,3,6,7,8-HxCDD			203.0	ppb
	1,2,3,7,8,9-HxCDD			192.0	ppb
	1,2,3,4,6,7,8-HpCDD			1285.0	ppb
	OCDD			3554.0	ppb
	2,3,7,8-TCDF			2264.0	ppb
	1,2,3,7,8-PCDF			2994.0	ppb
	2,3,4,7,8-PCDF			2216.0	ppb
	1,2,3,4,7,8-HxCDF			3981.0	ppb
	2,3,4,6,7,8-HxCDF			1367.0	ppb
	1,2,3,7,8,9-HxCDF			1100.0	ppb
	1,2,3,4,6,7,8-HpCDF			3198.0	ppb
	1,2,3,4,7,8,9-HpCDF			3544.0	ppb
	OCDF			17467.0	ppb

V. FEEDSTOCKS (See appendix for CAS numbers)

CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER	CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER
FDS	Unknown	Unknown	FDS	Unknown	Unknown
FDS			FDS		
FDS			FDS		
FDS			FDS		

VI. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

IEPA/ENV/88-023 May 1988 Ash Sampling of Two Incinerators in Illinois (Part 1 and 2)
IEPA Div of Air Pollution Control Division File (Part 1 and 2)
Illinois Municipal Directory (Part 1, Sec II)
Mr W. Engeroff IEPA-Environment (Part 1, Sec II)
1965 25 Topographical Maps (Part 1, Sec II, III)
IEPA Recommendation for Inspection 7/7/88 (Part 1)

EPA

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION
01 STATE: ILD | 02 SITE NUMBER: 076875285

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 ☐ A GROUNDWATER CONTAMINATION | 02 ☐ OBSERVED (DATE ___) | POTENTIAL | ALLEGED
03 POPULATION POTENTIALLY AFFECTED: ___ | 04 NARRATIVE DESCRIPTION

Unknown

01 ☐ B SURFACE WATER CONTAMINATION | 02 ☐ OBSERVED (DATE ___) | ☐ POTENTIAL | ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: ___ | 04 NARRATIVE DESCRIPTION

Unknown

01 ☒ C CONTAMINATION OF AIR | 02 ☐ OBSERVED (DATE ___) | ☐ POTENTIAL | ☒ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: Unknown | 04 NARRATIVE DESCRIPTION

During the peroid of 8/76 until 9/86, this site operated as a wire burning facility. On April 15, 1987 the IEPA and their contracter Radian Corp. sampled this site. The results indicated high levels of dioxin ash in the burners and in the soil at the site.

01 ☐ D FIRE/EXPLOSIVE CONDITIONS | 02 ☐ OBSERVED (DATE ___) | ☐ POTENTIAL | ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: ___ | 04 NARRATIVE DESCRIPTION

Unknown

01 ☒ E. DIRECT CONTACT | 02 ☐ OBSERVED (DATE ___) | ☐ POTENTIAL | ☒ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: Unknown | 04 NARRATIVE DESCRIPTION

During the approximately ten years this wire burning facility operated the employees as well as the ~~the~~ any people entering this site would have been in direct contact with the contaminants in the soil and any airborne ash which would be coming from the burning operation or by wind blown dust.

01 ☒ F. CONTAMINATION OF SOIL | 02 ☒ OBSERVED (DATE 4/15/87) | POTENTIAL | ALLEGED
03 AREA POTENTIALLY AFFECTED: ___ (Acres) | 04 NARRATIVE DESCRIPTION

Sampling of the on-site soil during the April, 1987 inspection revealed contamination of those hazardous substances listed in Part 2, see IV.

01 ☐ G. DRINKING WATER CONTAMINATION | 02 ☐ OBSERVED (DATE ___) | ☐ POTENTIAL | ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: ___ | 04 NARRATIVE DESCRIPTION

Unknown

01 ☒ H. WORKER EXPOSURE/INJURY | 02 ☐ OBSERVED (DATE ___) | ☒ POTENTIAL | ☐ ALLEGED
03 WORKERS POTENTIALLY AFFECTED: Unknown | 04 NARRATIVE DESCRIPTION

See F.

01 ☒ I. POPULATION EXPOSURE/INJURY | 02 ☐ OBSERVED (DATE ___) | ☒ POTENTIAL | ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: Unknown | 04 NARRATIVE DESCRIPTION

The wire burning facility was located in a economically depressed residential area.

EPA

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION
01 STATE: ILD | 02 SITE NUMBER: 07687585

II. HAZARDOUS CONDITIONS AND INCIDENTS (Continued)

01 ☐ J. DAMAGE TO FLORA — 02 ☐ OBSERVED (DATE _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

Unknown

01 ☐ K. DAMAGE TO FAUNA — 02 ☐ OBSERVED (DATE _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION (Include number of species)

Unknown

01 ☐ L. CONTAMINATION OF FOOD CHAIN — 02 ☐ OBSERVED (DATE _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

Unknown

01 ☒ M. UNSTABLE CONTAINMENT OF WASTES (Spills/runoff/standing liquids/leaking drums) — 02 ☒ OBSERVED (DATE 4/15/87) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: Unknown — 04 NARRATIVE DESCRIPTION

See C and F.

01 ☒ N. DAMAGE TO OFFSITE PROPERTY — 02 ☐ OBSERVED (DATE _____) ☒ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

See I.

01 ☒ O. CONTAMINATION OF SEWERS, STORM DRAINS, WWTPs — 02 ☐ OBSERVED (DATE _____) ☒ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

Airborne ash which settled on the surrounding area would have a high potential to be partially carried conveyed to storm drains and to WWTPs.

01 ☐ P. ILLEGAL/UNAUTHORIZED DUMPING — 02 ☐ OBSERVED (DATE _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

Unknown

05 DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR ALLEGED HAZARDS

Unknown

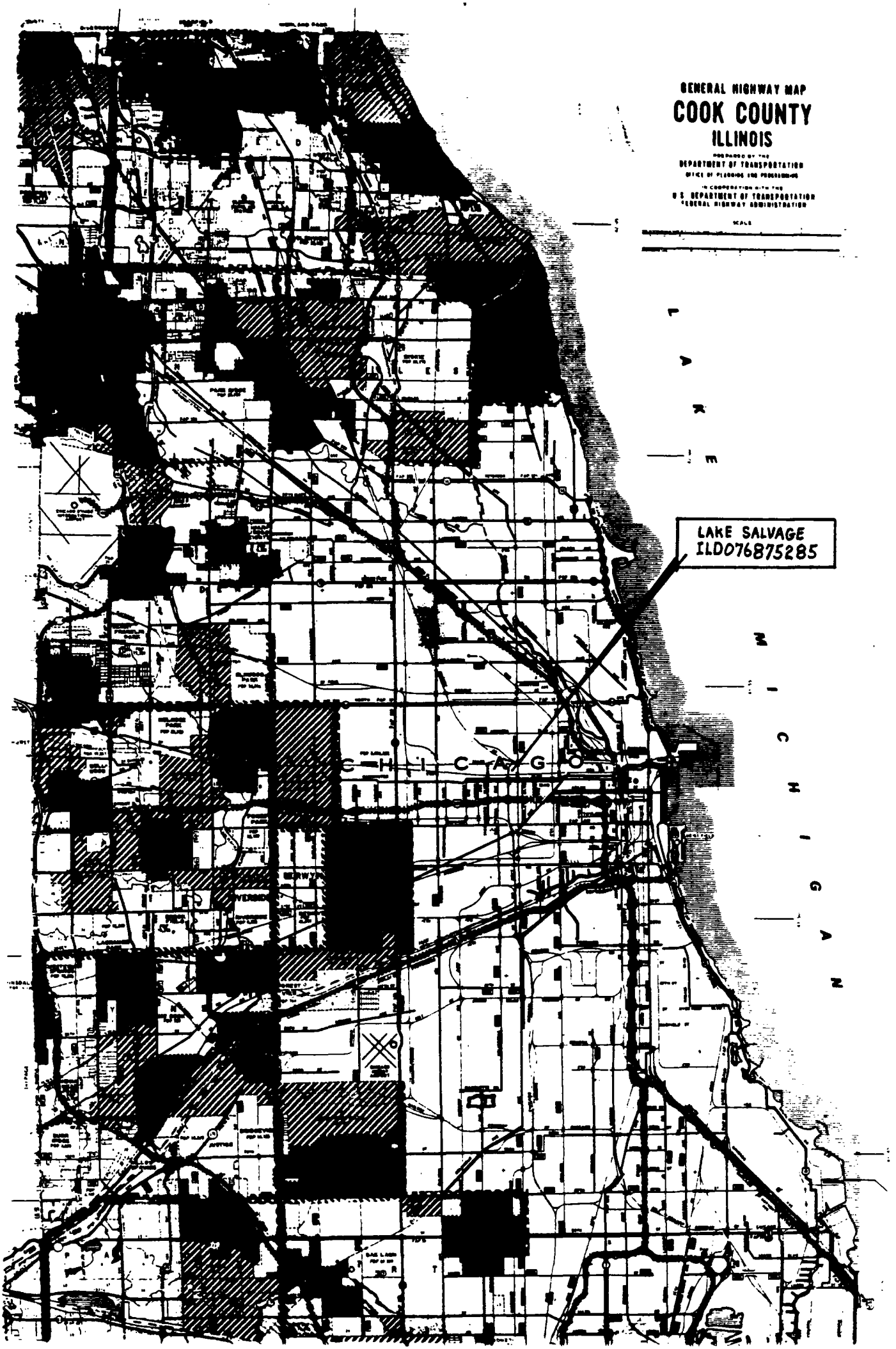
III. TOTAL POPULATION POTENTIALLY AFFECTED: >10,000

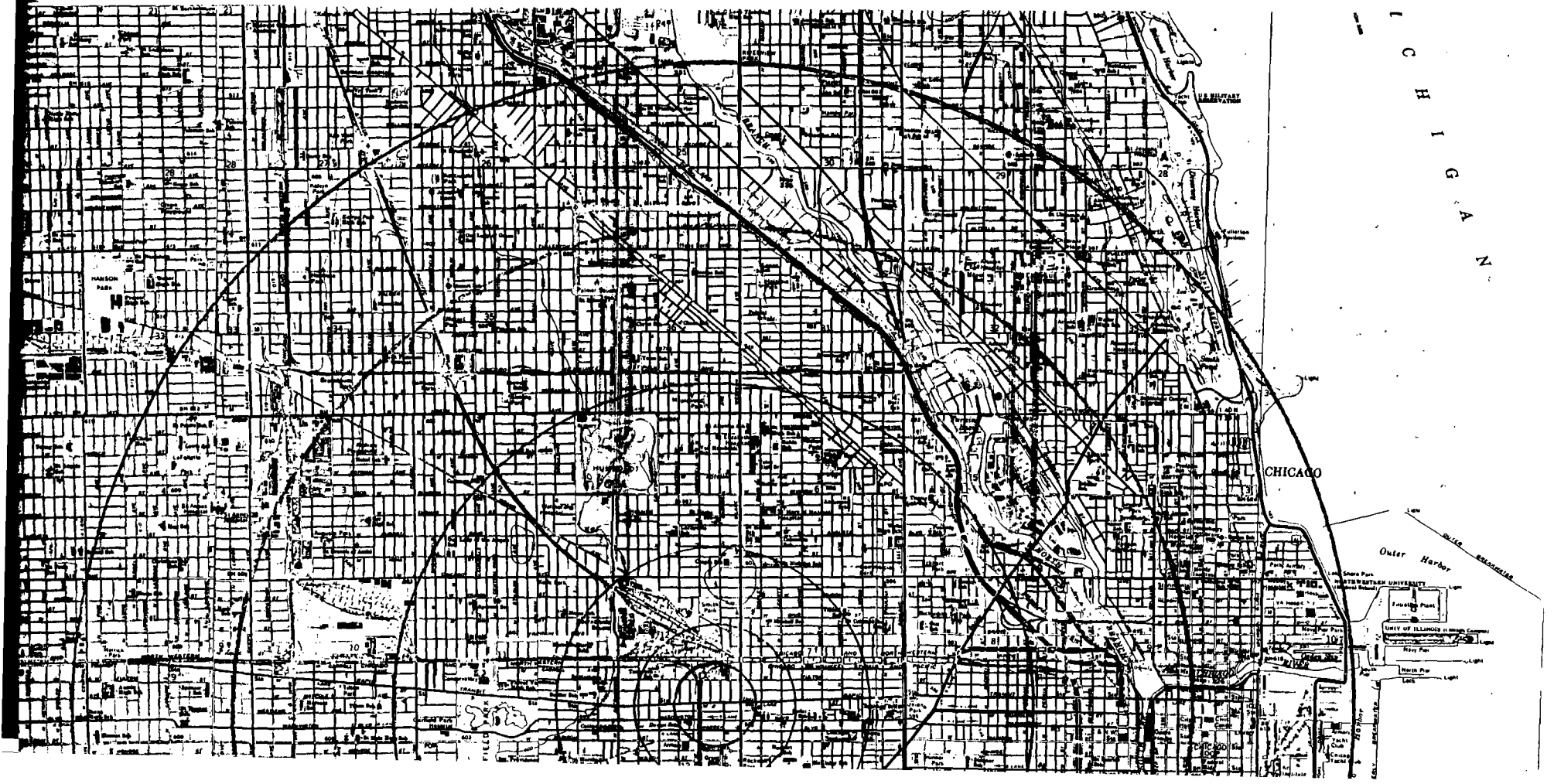
IV. COMMENTS

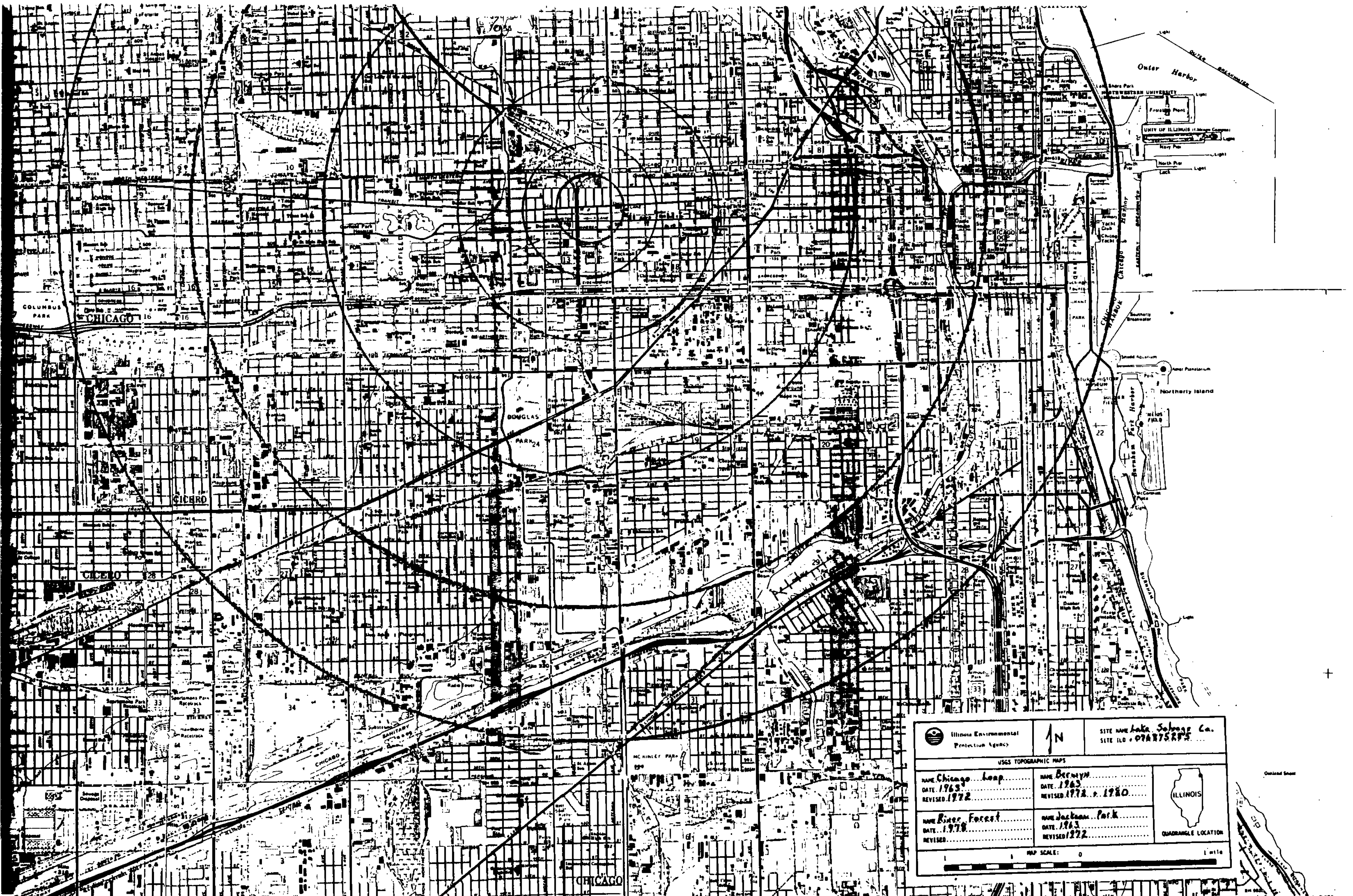
V. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

IEPA/ENV/88-028 May, 1988, Ash Sampling of Two Landowners in Illinois (Part 3, Sec C, E, F, H, M)
IEPA/APC Division File (Part 3, Sec C, M)
IL Municipal Directory (Part 3, Sec I, O)
No. of Employees IEPA-Enforcement (Part 3, Sec M)
IEPA/DLPC Reconnaissance Inspection 8-9-88 (Part 3, Sec E, F, H I, M, O)

EPA FORM 2070-12 (7-81)


GENERAL HIGHWAY MAP
COOK COUNTY
ILLINOIS
DEPARTMENT OF TRANSPORTATION
U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
SCALE
LAKE SALVAGE
ILD076875285
LAKE MICHIGAN
CHICAGO


CHICAGO
Outer Harbor


Outer Harbor
Northerly Island
DOUGLAS PARK
COLUMBUS PARK
CHICAGO
CICERO
CHICAGO LOOP
Illinois Environmental Protection Agency
N
SITE NAME Lake Solvent Co.
SITE ILD # 07A875RFS
USGS TOPOGRAPHIC MAPS
NAME Chicago Loop
DATE 1963
REVISED 1972
NAME Berwyn
DATE 1963
REVISED 1972 & 1980
NAME River Forest
DATE 1978
REVISED
NAME Jackson Park
DATE 1963
REVISED 1972
ILLINOIS
QUADRANGLE LOCATION
MAP SCALE:
0
1 mile

DATE: 8-9-88

TIME: 11:00 A.M.

Photograph by:

Gary L. Reside

Location:

Lake Salvage Company

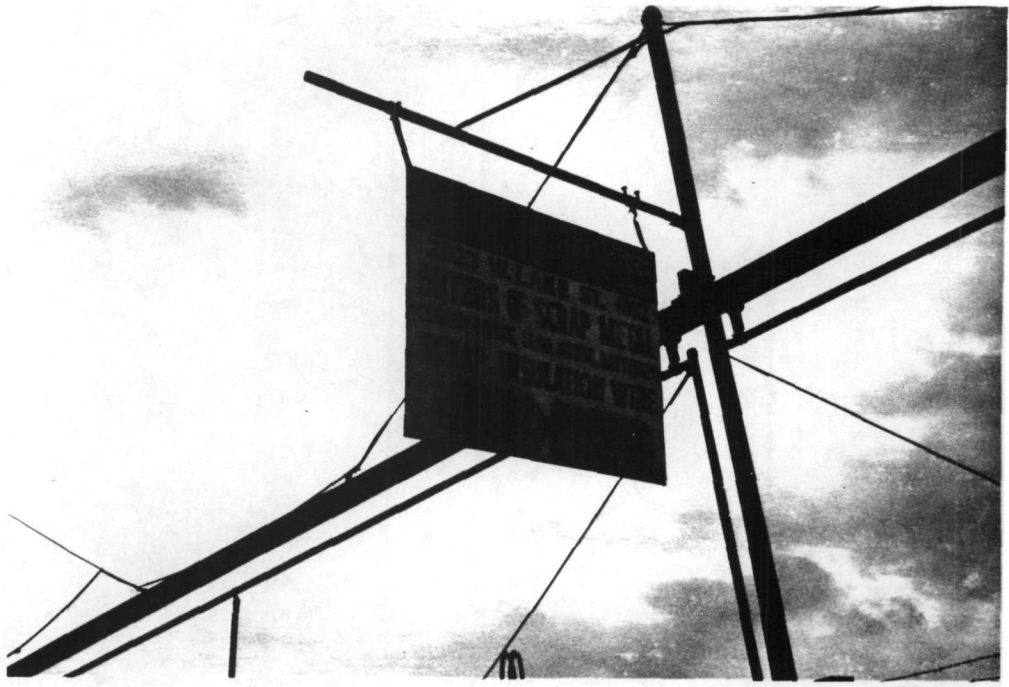
2527 W. Lake St.

Comments: Picture taken toward

Sign in front of Lake Salvage

Company site.

1.



DATE: 8-9-88

TIME: 11:00 A.M.

Photograph by:

Gary L. Reside

Location: Lake Salvage Company

2527 W. Lake St.

Comments: Picture taken toward

View from Lake street of

Northeast corner of site.

2.

DATE: 8-9-88

TIME: 11:00 A.M.

Photograph by:

Gary L. Reside

Location:

Lake Salvage Company

2527 W. Lake St.

Comments: Picture taken toward

View from Lake Street of

Southeast corner of site.

3.

DATE: 8-9-88

TIME: 11:00 A.M.

Photograph by:

Gary L. Reside

Location: Lake Salvage Company

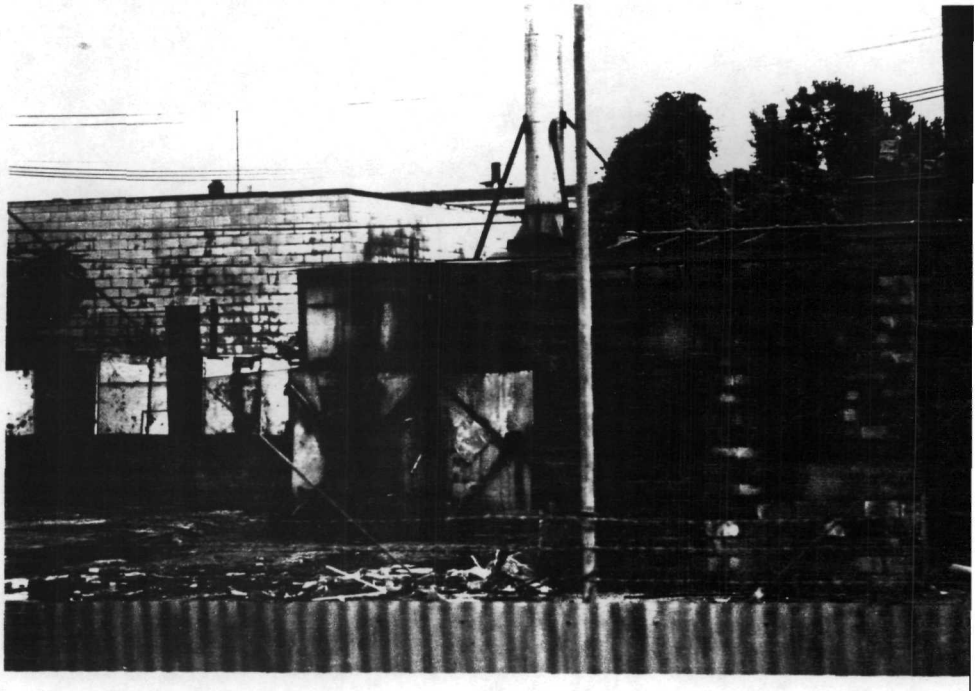
2527 W. Lake St.

Comments: Picture taken toward

View from Lake Street, South

to wire burners.

4.



DATE: 8-9-88

TIME: 11:00 A.M.

Photograph by:

Gary L. Resid

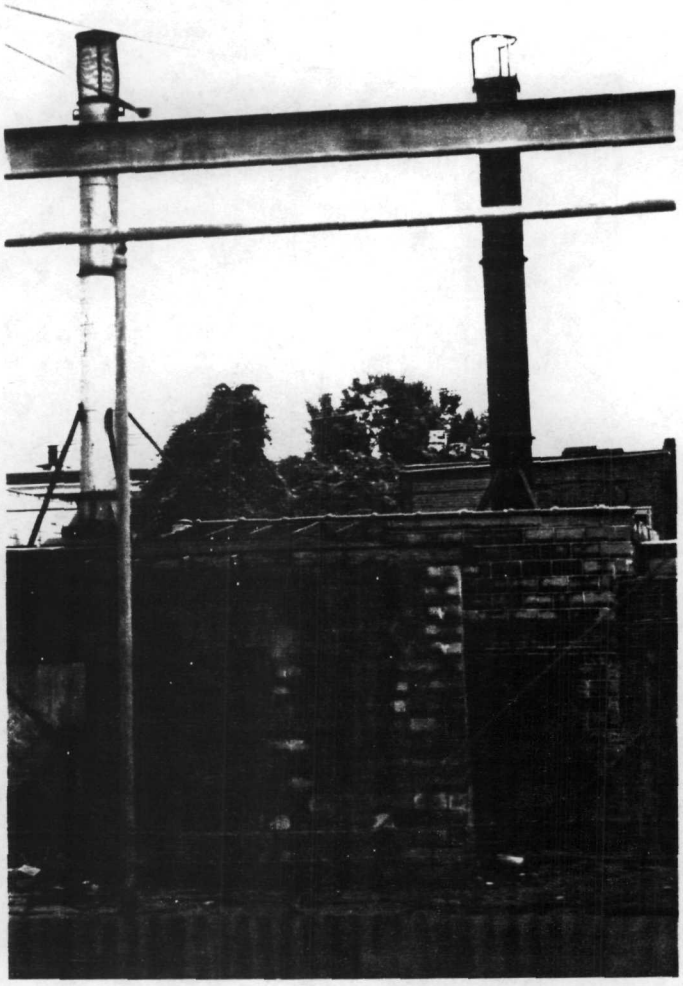
Location:

Lake Salvage Company
2527 W. Lake St.

Comments: Picture taken toward

View from Lake Street, South
to wire burners.

5.



DATE: 8-9-88

TIME: 11:00 A.M.

Photograph by:

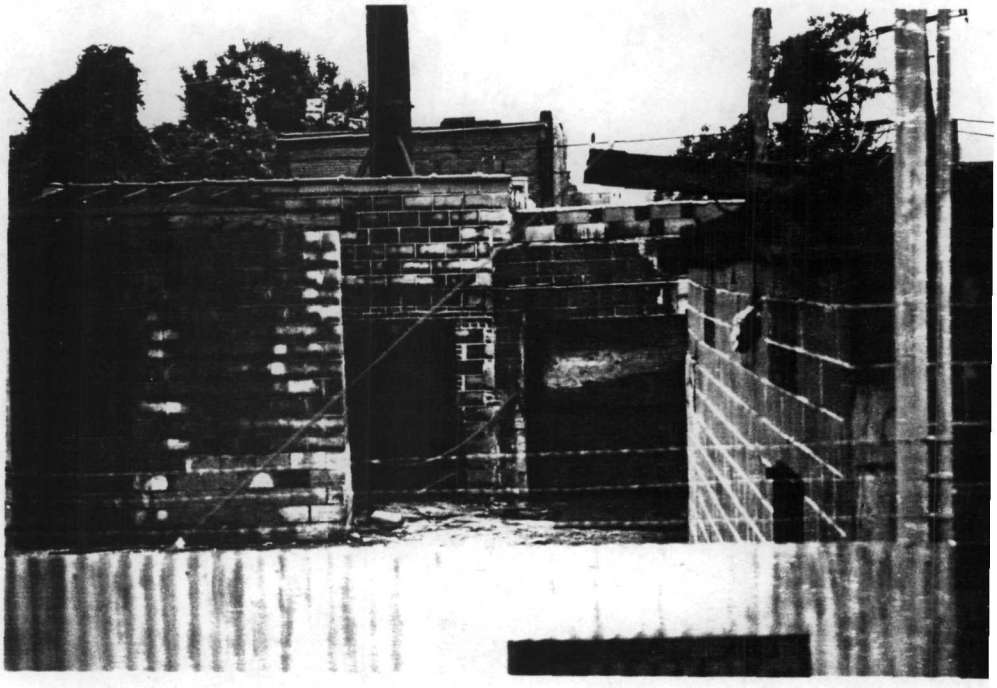
Gary L. Reside

Location: Lake Salvage Company
2527 W. Lake St.

Comments: Picture taken toward

View from Lake Street of
Northwest corner of wire
burners.

6.



DATE: 8-9-88

TIME: 11:00 A.M

Photograph by:

Gary L. Reside

Location:

Lake Salvage Company

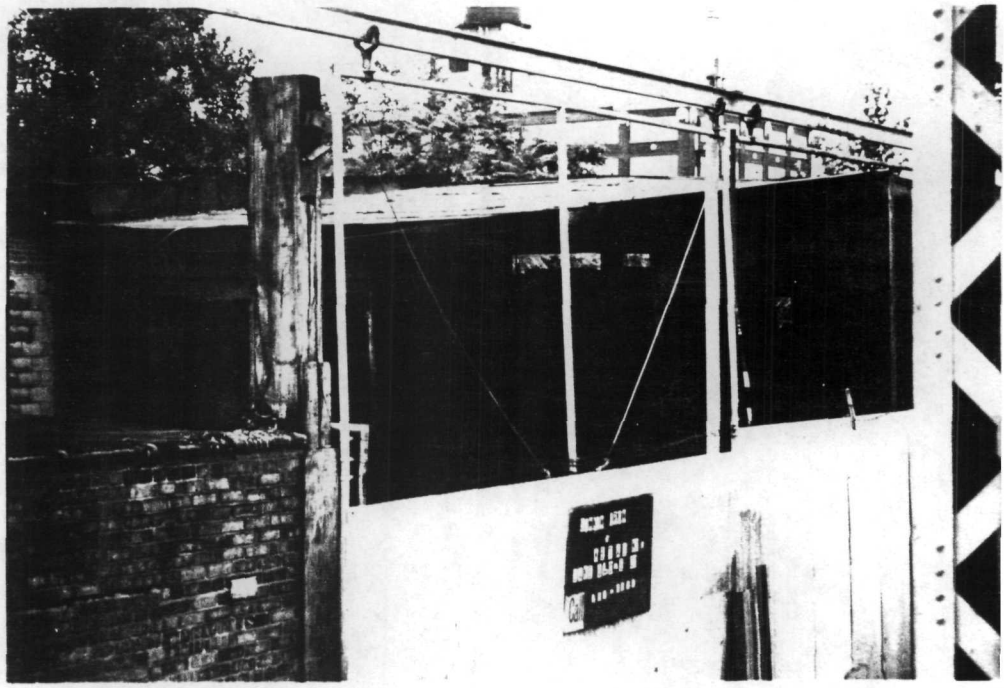
2527 W. Lake Street

Comments: Picture taken toward

View from Lake street of

Northwest corner of site.

7.



DATE: _____

TIME: _____

Photograph by:

_____

Location: _____

_____

Comments: Picture taken toward

_____

_____

_____

_____

Supporting Documentation

Table of Contents

RED 7/12

FLC 6425

Lake Salvage Company

2527-29 WEST LAKE STREET
CHICAGO, ILLINOIS 60612

TA9-8882

July 29, 1974

Application #C 4 06 047
I.D. # 031 600 EHK

Illinois Environment Protection Agency
2200 Churchill Road
Springfield, Illinois 62706

Attention: Mr. Keith J. Conklin, P.E.
Manager, Permit Section
Division of Air Pollution Control

Dear Sir:

The Board of Directors of the Lake Salvage Company, Inc. do hereby approve and authorize Mr. Wayne R. Bauman of the P.F.B. Incinerator Company to sign the application for the construction permit #C 4 06 047 on behalf of the Lake Salvage Company, Incorporated.

Sincerely yours,

President	Alex Simkin	Alex Simkin
Secretary	Irwim Simkin	Irwin Simkin
Treasurer	Edward Simkin	Edward Simkin

Reopen
FLC

RECEIVED
JUL 31 1974
ENVIRONMENTAL PROTECTION AGENCY
STATE OF ILLINOIS

A

(217) 782-2113

August 26, 1974

LAKE SALVAGE CO., INC.
2527 West Lake Street
Chicago, Illinois 60612

Attention: Mr. Alex Simkin

Reference
Application No. - C 4 06 047
I. D. No. - 031 600 EPK
Received - June 14, 1974
Construction of - Wire Reclaiming Furnace
Location - 2527 West Lake Street
Chicago, Illinois
Cook County

Gentlemen:

Permit is hereby granted to construct the above-referenced equipment. This permit is granted subject to the following conditions:

1. Standard conditions attached hereto and incorporated herein by reference.

2. The following special condition:

   a. Within 30 days of commencement of operation, the particulate matter concentrations in the effluent stream shall be measured, using the procedures described in the ASME Test Code 27-1957 as revised from time to time, or other equivalent procedures approved by the Agency, by an approved independent testing service. The results of these tests, in triplicate, will be forwarded to the Agency immediately after the test results are compiled and finalized. The Agency may witness these tests. The Agency is to be notified a minimum of thirty (30) days prior to the expected date of these tests and further notified a minimum of five (5) working days prior to the test of the exact date, time and place of these tests.

Very truly yours,

Keith J. Conklin, P.E.
Manager, Permit Section
Division of Air Pollution Control

WDT:jab
2
cc: IEC

B

153053.

60612

031 6[illegible]

LAKE SALVAGE Co., INC.

C406047

APPLICANT REQUESTS A PERMIT TO CONSTRUCT AN INCINERATOR FOR A WIRE RECLAIMING PROCESS. APPLICAUT HAS BEEN GRANTED AN INSTALLATION PERMIT BY THE CITY OF CHICAGO WITH FINAL APPROVAL PENDING ON AN EMISSION TEST AFTER INSTALLATION.

SINCE WE HAVE NO INFO ON FILE FOR THIS UNIT, WE MUST ASK FOR TEST RESULTS, ALSO.

PERMIT GRANTED WITH STACK TEST REQUIRED. 8-19-74

ST

STATE OF ILLINOIS
ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF AIR POLLUTION CONTROL
2200 CHURCHILL ROAD
SPRINGFIELD, ILLINOIS 62706

APPLICATION FOR A PERMIT (A)
☒ CONSTRUCT ☐ OPERATE

NAME OF EQUIPMENT TO BE CONSTRUCTED OR OPERATED: WIRE RECLAIMING FURNACE (B)

FOR AGENCY USE ONLY
I. D. NO. _____
PERMIT NO. _____
DATE _____

1a. NAME OF OWNER: ALEX SIMKIN		2a. NAME OF OPERATOR: EMPLOYEES OF LAKE SALVAGE CO., INC.	
1b. STREET ADDRESS OF OWNER: 2527 W. LAKE ST.		2b. STREET ADDRESS OF OPERATOR: 2527 W. LAKE ST.	
1c. CITY OF OWNER: CHICAGO		2c. CITY OF OPERATOR: CHICAGO	
1d. STATE OF OWNER: ILLINOIS	1e. ZIP CODE: 60612	2d. STATE OF OPERATOR: ILLINOIS	2e. ZIP CODE: 60612

3a. NAME OF CORPORATE DIVISION OR PLANT: LAKE SALVAGE CO., INC.		3b. STREET ADDRESS OF EMISSION SOURCE: 2527 W. LAKE ST.		
3c. CITY OF EMISSION SOURCE: CHICAGO	3d. LOCATED WITHIN CITY LIMITS: ☒ YES ☐ NO	3e. TOWNSHIP:	3f. COUNTY: COOK	3g. ZIP CODE: 60612

4. ALL CORRESPONDENCE TO: (NAME OF INDIVIDUAL) ALEX SIMKIN	5. TELEPHONE NUMBER FOR AGENCY TO CALL: TA.9-8882 (312)
6. ADDRESS FOR CORRESPONDENCE: (CHECK ONLY ONE) ☒ OWNER: ☐ OPERATOR ☐ EMISSION SOURCE	7. YOUR ID NUMBER FOR THIS APPLICATION: (C) SP.-8001

8. THE UNDERSIGNED HEREBY MAKES APPLICATION FOR A PERMIT AND CERTIFIES THAT THE STATEMENTS CONTAINED HEREIN ARE TRUE AND CORRECT, AND FURTHER CERTIFIES THAT ALL PREVIOUSLY SUBMITTED INFORMATION REFERENCED IN THIS APPLICATION REMAINS TRUE, CORRECT AND CURRENT. BY AFFIXING HIS SIGNATURE HERETO HE FURTHER CERTIFIES THAT HE IS AUTHORIZED TO EXECUTE THIS APPLICATION.

AUTHORIZED SIGNATURE(S): (D)

BY Wayne R. Baumann (SIGNATURE) 6/10/74 (DATE)
WAYNE R. BAUMANN (TYPED OR PRINTED NAME OF SIGNER)
OWNER - P.B. INCINERATOR CO. (TITLE OF SIGNER)

BY _____ (SIGNATURE) _____ (DATE)
_____ (TYPED OR PRINTED NAME OF SIGNER)
_____ (TITLE OF SIGNER)

(A) THIS FORM IS TO PROVIDE THE AGENCY WITH GENERAL INFORMATION ABOUT THE EQUIPMENT TO BE CONSTRUCTED OR OPERATED. THIS FORM MAY ONLY BE USED TO REQUEST ONE TYPE OF PERMIT - CONSTRUCTION OR OPERATION - AND NOT BOTH.

(B) CLEARLY IDENTIFY THE GENERIC NAME OF THE EQUIPMENT TO BE CONSTRUCTED OR OPERATED. SUCH IDENTIFICATION WILL APPEAR ON THE PERMIT WHICH MAY BE ISSUED PURSUANT TO THIS APPLICATION. THIS FORM MUST BE ACCOMPANIED BY THE APPLICABLE ADDENDA.

(C) PROVIDE A NUMBER IN ITEM 7 ABOVE WHICH YOU WOULD LIKE THE AGENCY TO USE FOR IDENTIFICATION OF YOUR EQUIPMENT. YOUR IDENTIFICATION NUMBER WILL BE REFERENCED IN ALL CORRESPONDENCE, RELATIVE TO THIS APPLICATION, FROM THIS AGENCY. YOUR IDENTIFICATION NUMBER MUST NOT EXCEED TEN (10) CHARACTERS.

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JUN 14 1974
ENVIRONMENTAL PROTECTION AGENCY
STATE OF ILLINOIS

(D) THIS APPLICATION MUST BE SIGNED IN ACCORDANCE WITH PCB REGS., CHAPTER 2, PART 1, RULE 103(a)(4) OR 103(b)(5) WHICH STATES: "ALL APPLICATIONS AND SUPPLEMENTS THERETO SHALL BE SIGNED BY THE OWNER AND OPERATOR OF THE EMISSION SOURCE OR AIR POLLUTION CONTROL EQUIPMENT, OR THEIR AUTHORIZED AGENT, AND SHALL BE ACCOMPANIED BY EVIDENCE OF AUTHORITY TO SIGN THE APPLICATION."

IF THE OWNER OR OPERATOR IS A CORPORATION, SUCH CORPORATION MUST HAVE ON FILE WITH THE AGENCY A CERTIFIED COPY OF A RESOLUTION OF THE CORPORATION'S BOARD OF DIRECTORS AUTHORIZING THE PERSONS SIGNING THIS APPLICATION TO CAUSE OR ALLOW THE CONSTRUCTION OR OPERATION OF THE EQUIPMENT TO BE COVERED BY THE PERMIT.

9. AN OPERATING PERMIT APPLICATION MUST BE SUBMITTED IN DUPLICATE.
A CONSTRUCTION PERMIT APPLICATION FOR CONSTRUCTION IN COOK COUNTY OUTSIDE OF THE CORPORATE LIMITS OF CHICAGO MUST BE SUBMITTED IN QUADRUPLICATE.
A CONSTRUCTION PERMIT APPLICATION IN ALL OTHER LOCATIONS MUST BE SUBMITTED IN TRIPLICATE.

10. THE APPLICANT SHALL SUBMIT A PLOT PLAN AND MAP SHOWING DISTANCES TO THE NEAREST BOUNDARY OF THE PROPERTY ON WHICH THE OPERATION IS LOCATED AND DISTANCES TO THE NEAREST RESIDENCES, LODGINGS, NURSING HOMES, HOSPITALS, SCHOOLS AND COMMERCIAL AND MANUFACTURING ESTABLISHMENTS. IF SUCH A PLOT PLAN AND MAP HAS ALREADY BEEN SUBMITTED, INDICATE THE ASSOCIATED AGENCY I.D. NUMBER AND PERMIT APPLICATION NUMBER. AGENCY I.D. NO. _ _ _ _ _ _ _ _ _ APPLICATION NO. _ _ _ _ _ _ _ _ _

11. THE APPLICANT SHALL SUBMIT A PROCESS FLOW DIAGRAM DEPICTING ALL EMISSION SOURCES AND ALL AIR POLLUTION CONTROL EQUIPMENT COVERED BY THIS PERMIT APPLICATION. THE DIAGRAM SHALL INCLUDE LABELS FOR EACH EMISSION SOURCE AND EACH ITEM OF AIR POLLUTION CONTROL EQUIPMENT, AND SHALL SET FORTH MAXIMUM FLOW RATES FOR (1) ALL PROCESSING EQUIPMENT, (2) ALL AIR POLLUTION CONTROL EQUIPMENT, (3) ALL EMISSION SOURCES, AND (4) ALL STACKS AND VENTS. NUMBER OF SHEETS: _____ DRAWING NUMBER(S): _____

12. FOR EACH EMISSION SOURCE AND EACH ITEM OF AIR POLLUTION CONTROL EQUIPMENT IDENTIFIED ON THE PROCESS FLOW DIAGRAM, THE APPLICANT SHALL COMPLETE AND SUBMIT THE APPLICABLE PERMIT APPLICATION FORMS. THE FLOW DIAGRAM SHALL INDICATE THROUGH WHICH STACK OR VENT AN EMISSION SOURCE OR ITS RELATED AIR POLLUTION CONTROL EQUIPMENT IS EXHAUSTED. IF IT IS EXHAUSTED WITHIN A BUILDING, SO INDICATE.

13. IF THIS IS AN APPLICATION FOR AN OPERATING PERMIT, AND THE APPLICANT IS INCORPORATING BY REFERENCE PREVIOUSLY GRANTED INSTALLATION OR CONSTRUCTION PERMITS, HE SHALL COMPLETE FORM APC-210, ENTITLED "DATA AND INFORMATION -- INCORPORATION BY REFERENCE."

14. IF THIS IS AN APPLICATION FOR AN OPERATING PERMIT, AND THE STARTUP OF ANY EMISSION SOURCE DESCRIBED BY THIS APPLICATION PRODUCES AN AIR CONTAMINANT IN EXCESS OF APPLICABLE STANDARDS, THE APPLICANT MAY REQUEST PERMISSION TO EXCEED SUCH STANDARDS BY COMPLETING FORM APC-203, ENTITLED "OPERATION DURING STARTUP."

15. IF THIS IS AN APPLICATION FOR AN OPERATING PERMIT, AND THE APPLICANT IS APPLYING FOR PERMISSION TO OPERATE AN EMISSION SOURCE DURING MALFUNCTIONS OR BREAKDOWNS PURSUANT TO PCB REGS., CHAPTER 2, RULE 105, THE APPLICANT MAY REQUEST SUCH PERMISSION BY COMPLETING FORM APC-204, ENTITLED "OPERATION DURING MALFUNCTION AND BREAKDOWN."

16. IF THIS IS AN APPLICATION FOR AN OPERATING PERMIT AND ALL OR ANY PART OF THE PROCESS MUST BE CONTROLLED OR MODIFIED TO COMPLY WITH APPLICABLE REGULATIONS, THE APPLICANT SHALL COMPLETE FORM APC-202, ENTITLED "COMPLIANCE PROGRAM & PROJECT COMPLETION SCHEDULE."

17. IF THIS IS AN APPLICATION FOR AN OPERATING PERMIT, DOES THE OPERATION COVERED BY THIS APPLICATION REQUIRE AN EPISODE ACTION PLAN? ☐ YES ☐ NO

18. WAS EACH EMISSION SOURCE COVERED BY THIS APPLICATION, AS OF APRIL 14, 1972, IN COMPLIANCE WITH THE "RULES AND REGULATIONS GOVERNING THE CONTROL OF AIR POLLUTION," ADOPTED BY THE FORMER AIR POLLUTION CONTROL BOARD AND CONTINUED EFFECTIVE PURSUANT TO SECTION 49(c) OF THE ENVIRONMENTAL PROTECTION ACT? ☐ YES ☐ NO

19. IF THIS IS AN APPLICATION FOR AN OPERATING PERMIT, WAS THE OPERATION THE SUBJECT OF A VARIANCE PETITION FILED WITH THE ILLINOIS POLLUTION CONTROL BOARD ON OR BEFORE JUNE 13, 1972? ☐ YES ☐ NO

IF "YES," CITE PCB NUMBER(S): _____ DATE OF BOARD ORDER: _____

HAD THE APPLICANT ON OR BEFORE APRIL 14, 1972, COMMENCED CONSTRUCTION OF EQUIPMENT OR MODIFICATIONS SUFFICIENT TO ACHIEVE COMPLIANCE WITH THE APPLICABLE LIMITATIONS OF THE "RULES AND REGULATIONS GOVERNING THE CONTROL OF AIR POLLUTION," ADOPTED BY THE FORMER AIR POLLUTION CONTROL BOARD AND CONTINUED EFFECTIVE PURSUANT TO SECTION 49(c) OF THE ENVIRONMENTAL PROTECTION ACT? ☐ YES ☐ NO

IF "NO," EXPLAIN IN DETAIL AND MARK YOUR EXPLANATION AS EXHIBIT D.

TOTAL NUMBER OF PAGES IN EXHIBIT D: _____

20. IF THIS IS AN APPLICATION FOR AN OPERATING PERMIT, THE APPLICANT SHALL SUBMIT AN ESTIMATE OF THE MAXIMUM ONE-HOUR AMOUNTS OF PARTICULATE MATTER, SULFUR DIOXIDE, CARBON MONOXIDE, OXIDES OF NITROGEN, AND ORGANIC MATERIAL EMITTED FROM ALL SOURCES LOCATED ON THE PLANT OR PREMISES. THIS ESTIMATE SHALL INCLUDE ALL EMISSION SOURCES LOCATED ON THE APPLICANT'S PREMISES AND NOT JUST THE EMISSION SOURCES DESCRIBED IN THIS APPLICATION.

MATERIAL	MAXIMUM ONE-HOUR AMOUNTS	MATERIAL	MAXIMUM ONE-HOUR AMOUNTS	MATERIAL	MAXIMUM ONE-HOUR AMOUNTS
PARTICULATE MATTER	_____ LB	SULFUR DIOXIDE	_____ LB	NITROGEN OXIDES	_____ LB
ORGANIC MATERIAL	_____ LB	CARBON MONOXIDE	_____ LB		

21. WHAT IS THE SIZE (IN ACRES) OF APPLICANT'S PREMISES?

22. LIST AND IDENTIFY ALL FORMS, EXHIBITS, AND OTHER INFORMATION SUBMITTED AS PART OF THIS APPLICATION. PLEASE NUMBER EVERY PAGE AND STATE THE TOTAL NUMBER OF PAGES IN THIS APPLICATION.

P. F. B. INCINERATOR COMPANY
RTE. 1, BOX 251,
GENOA CITY, WIS. 53128
(414 - 279 - 6565)

6/12/74

c31600

STATE of ILLINOIS
DIV. of AIR POLLUTION,
2200 CHURCHILL ROAD,
SPRINGFIELD, ILLINOIS, 62706.

ATT: Mr. Keith Conklin - Director.

Dear Sir;

Persuant to my conversation with Mr. Fred Crawford regarding the installatior of a wire reclaiming furnace in the City of Chicago, I have enclosed copies of my permit applications which were sent to the City of Chicago, (approved), State of Illinois construction application in triplicate, and old State of Illinois forms which we used a short while back.

Also enclosed are three copies of the drawings which Mr. Crawford said would be required.

The City of Chicago called and said that they have approved the installation pending an emmission test after installation has been completed and bugs have been taken out. The test is written into my contract with the owner of Lake Salvage Company, Inc., for the protection of all concerned.

I do hope that the information enclosed is complete and will meet with the Departments satisfaction.

I was the former owner of Scott Incinerator Company, which was sold to the Basic Engineering Company, Glen Ellyn.

I would also appreciate more permit and data forms for later use, as Mr. Crawfold mailed only enough for this application. Thank you.

Yours very truly,

Wayne R. Baumann - Owner

Wayne R. Baumann - Owner
P. F. B. Incinerator Company
Rte, 1, Box 251, Genoa City, Wis.53128

City of Chicago

Department of Environmental Control

Engineering Services

Room ~~500~~ 402 — 320 N. Clark Street, Chicago, Illinois 60610

Office Use Only
Leave this area blank

Quadrant	N-S	E-W
Grid No.	Census Tract	
Address Code		
Sequence No.		

S.I.C. _____ S.L.U.C. _____ Application Date _____

INSTALLATION PERMIT APPLICATION FOR INCINERATOR CONTROL DEVICE

FORM **I.C.**

Permit No. _____

Permit Date _____

a. Complete the sections indicated ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐ 10

b. INSTALLATION ADDRESS— (ON CORNER BUILDINGS SHOW BOTH ADDRESSES)
NORTH—SOUTH EAST—WEST

1	c. Owner Name: LAKE SALVAGE CO. INC.		d. Owner Address: 2527 W. LAKE ST. CHGO.	
	e. Prepared by: P.F.B. INCINERATOR CO. (Signature) Wayne R. Bunnow		f. Prepared by: (Name and title) - Owner - Sales Engr.	
2	a. EQUIPMENT DATA	b. Type of Equipment: RECLAIMING FURNACE	c. Make and Model: P.F.B. SP 8001	d. Dimension (LxWxH) (2): 6'-7" x 6'-6" x 7'-6" I.D
	e. Number of units, capacity: 2 - 500-800-1200	f.	g. Auxiliary Equipment: FORCED DRAFT FAN	h. Connected To: C.F. AIR IN PRIMARY CHAMBER C.F. " " SECONDARY - SECONDARY
3	a. SETTLING CHAMBER	b. Retention time (sec.): .35 @ Scrubber	c. Dimensions (LxWxH): 3 PASS - VARIED	d. Settling Velocity (FPS): 33
	e. Number of units on construction	f. 3	g. Length of settling path: 18'-4"	h. Connected To: SCRUBBER
4	a. BURNER DATA	b. Type of Burner, Fuel ~~Oil~~ GAS - INCINERITE	c. Make and Model (2) - J80-3 POWER (2) - J120-3 "	d. Total B.T.U. Input: 2,725,000
	e. Number of units, Ignition: 4	f. SPARK	g. CFM Exhausted (Temperature): 1800 @ 70°	h. Connected To: PRIMARY + SECONDARY CHAMBRS.
5	a. STACKS, VENTS AND EXHAUST OPENING	b. Type of Vent: STACK	c. Dimensions (LxW): 28" I.D. - 32" O.D.	d. Dampers: (QUICKDRAFT)
	e. Number of vents, construction	f. Height above Roof ft. Grade 40 ft.	g. CFM Exhausted (Temperature): SEE NUMBER 7 °F.	h. Connected To: AS IN #7
6	a. LIQUID FLOW	b. Flow (Spray, Bubbler, etc.): SPRAYS - CONE TYPE	c. Contact Area: APPROX. 108 SQ. FT.	d. Contact Time (sec.): CONTINUOUS
	e. Composition of Solution	f.	g. Flow Rate (GPM): 15 @ 30 P.S.I.	h. Make Up (GPM): "
7	a. FAN DATA	b. Type of Fan (Designate Blade): OPEN XL	c. Make and Model: QUICKDRAFT	d. Motor Data: 1900 RPM 2 HP
	e. Number of fans, construction	f.	g. CFM Exhausted @ temp. °F.: 4224 @ 600	h. Connected To: STACK
8	a. CYCLONE DATA	b. Type of Cyclone ☐ common ☐ split duct ☐ multiclone	c. Make and Model	d. Inlet Area Sq. Ft.
	e. Number of units, construction	f. Body Diameter Inch / Outlet Diameter Inch	g. Body Height Inch / High Efficiency ☐ Yes ☐ No	h. Connected To:
9	a. WASTE DATA	b. Description of waste: PAPER INSULATED WIRE + COVERED TRANSFORMERS	c. Amount Collected: 4000 Pounds/Day	d. Particle size (average) Microns
	e. Types of Pollutants ☒ Particulate ☐ Aerosol ☐ Gas ☒ Odor	f.	g. Collection ☐ In Bins ☐ (SPECIFY)	h. Disposition of Collected Waste (SPECIFY) ☐ Scavenger ☐ RE-SALE
10	REMARKS	This is a twin cell wire reclaiming furnace to be batch fed, with two seperate secondary chambers entering a common chmbr. 11'-10" L for flame travel. It is designed to handle both units burning at one time dependant on materials to be re-claimed.		

ESTIMATED INSTALLED COST (CONTROL PLUS LABOR) $ 36,950.00

Top inch.

FORM 4615-054A (REV. 1-71)

STATE OF ILLINOIS
ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF AIR POLLUTION CONTROL
2200 CHURCHILL ROAD
SPRINGFIELD, ILLINOIS 62706

DATA AND INFORMATION INCINERATOR	FOR AGENCY USE ONLY

1. NAME OF OWNER: ALEX SIMKIN	2. NAME OF CORPORATE DIVISION OR PLANT (IF DIFFERENT FROM OWNER): LAKE SALVAGE CO. INC.
3. STREET ADDRESS OF EMISSION SOURCE: 2517 W LAKE ST.	4. CITY OF EMISSION SOURCE: CHICAGO ILL.

GENERAL INFORMATION

5. FLOW DIAGRAM DESIGNATIONS OF INCINERATORS DESCRIBED ON THIS FORM (REFER TO "GENERAL INSTRUCTIONS FOR COMPLETION OF PERMIT APPLICATIONS," FORM APC-201):

6. DESCRIPTION OF SOURCE OF WASTE: INSULATED WIRE - PLASTIC, RUBBER & PAPER. TRANSFORMERS & OTHER MATERIALS PERTAINING TO A SCRAP YARD RECLAIMING PROGRAM.

FOR AGENCY USE ONLY
DO NOT COMPLETE THIS SECTION

7. MANUFACTURER OF INCINERATOR: P.E.R. INCINERATOR CO. INC. (FORMERLY SCOTT ENG.)

MANUFACTURER CODE

8. MODEL NAME AND NUMBER: SP 500

9. ☐ FLUE ☐ SINGLE CHAMBER ☒ MULTIPLE CHAMBER

MODEL CODE

10. MAXIMUM AMOUNT OF WASTE TO BE INCINERATED: 2,000 LB/HR

CAPACITY CODE

11. ESTIMATED DAILY AMOUNT OF WASTE TO BE INCINERATED: 4,200 LB

PARTICULATE EMISSION FACTOR CODE

12. HEIGHT OF STACK ABOVE GRADE: 40 FT

CO EMISSION FACTOR CODE

13. HEIGHT OF TALLEST STRUCTURES WITHIN 150 FEET: 20 FT

14. PRIMARY BURNER USED? ☒ YES ☐ NO MAX RATING 1 - 450,000 BTU/HR

PRIMARY BURNER CODE

15. SECONDARY BURNER USED? ☒ YES ☐ NO MAX RATING 2 - @ 450,000 BTU/HR
3 REQ'D.

SECONDARY BURNER CODE

DESCRIPTION OF TYPICAL WASTE TO BE INCINERATED

16a. PAPER: Small amt. 23 % BY WT	b. DRY WOOD: 10 % BY WT	c. LEATHER, LINOLEUM: % BY WT
d. RUBBER AND PLASTICS: SOME OF 72 (SEE BELOW) 36 % BY WT	e. OILS AND PAINTS: % BY WT	f. STREET AND FLOOR SWEEPINGS: % BY WT
g. FATS AND MEAT DRESSING: % BY WT	h. GLASS AND CERAMICS: % BY WT	i. METALS: % BY WT
j. LEAVES, GRASS, BRANCHES, VEGETABLES & FRUITS: % BY WT	k. OTHER (SPECIFY): BARE COPPER 31 % BY WT	

FOR AGENCY USE ONLY

OPERATIONAL INFORMATION
17. AVERAGE OPERATION TIME OF INCINERATOR: _____ HRS/DAY _____ DAYS/WEEK _____ WKS/YEAR
18. PERCENT OF ANNUAL THROUGHPUT: DEC/FEB _____ % MAR/MAY _____ % JUN/AUG _____ % SEP/NOV _____ %

SPECIAL NOTES
19a. FOR INDUSTRIAL WASTES, COMPLETE COMPONENT AND/OR CHEMICAL DESCRIPTION INCLUDING SULFUR, CHLORIDE, ASH, AND MOISTURE CONTENT, MUST BE GIVEN IN AN EXHIBIT ATTACHED TO THIS APPLICATION.
b. THE AGENCY MUST HAVE ON FILE PROOF THAT THE MAKE AND MODEL INCINERATOR DESCRIBED HEREIN WILL MEET THE REQUIREMENTS OF RULES 203(e) and 206(b) WHEN BURNING THE WASTE, BOTH TYPE AND RATE, DESCRIBED HEREIN.
c. GAS CLEANING DEVICE? (IF "YES", COMPLETE APC-260, ENTITLED "DATA AND INFORMATION -- AIR POLLUTION CONTROL EQUIPMENT") ☐ YES ☐ NO
d. IF LOCATED IN COOK COUNTY, SUBMIT ADDITIONAL PERMIT APPLICATION PLUS COOK COUNTY CONSTRUCTION PERMIT APPLICATION.

City of Chicago

Department of Environmental Control

Engineering Services

4 c 2
Room ~~500~~ — 320 N. Clark Street. Chicago, Illinois 60610

Office Use Only Leave this area blank		
Quadrant	N-S	E-W
Grid No.	Census Tract	
Address Code		
Sequence No.		

S.I.C. _____ S.L.U.C. _____ Application Date _____

INSTALLATION PERMIT APPLICATION

FOR AN ~~INCINERATOR~~ WIRE RECLAIMING FURNACE

FORM I N.

Permit No. _____

Permit Date _____

a. Type of Bldg. ☒ New ☐ Exist — Total Number Apts. _____ Total Number of sleeping rooms _____

b. Installation address — (On corner buildings show both addresses) NORTH—SOUTH _____ EAST—WEST _____

1
- c. Owner's Name: LAKE SALVAGE Co., INC.
- d. Owner's Address: 2527 W. LAKE ST. CHgo, ILL
- e. Applicant Name: ALEX SIMKIN
- f. Applicant Address: SAME AS ABOVE

2

a. Incinerator:	b. Make:	c. Model and Class:	d. Location:	e. Name Plate:	f. Rating:
☒ New ☐ Reconst.	P.F.B. SPECIAL	SP-8001 III	☒ Inside ☐ Outside	☒ Yes ☐ No	600 (500-800) Lbs./Hr.

g. Grate Width:	h. Grate Length:	j. Grate Area:	k. Hearth Area:	l. Total Burning Area:	m. Burning Rate:
In.	In.	Sq.Ft.	42.5 Sq.Ft.	42.5 Sq.Ft.	33 Lbs/SF/Hr.

n.	o. Primary Volume	p. Secondary Volume:	q. Total Volume:	r. Pri. Heat Release:	s. Total Heat Release:
	306 CF	201.3 CF	507.3 CF	27.7 MBH/CF	16.7 MBH/CF

t. Primary Volume / Total Volume = 306 / 507.3 = 60 %

u. Source of Combustion Air — LOUVERS - OPEN FRONT

v. Area: 240 Sq.Ft.

3

a. Type of Waste:	b. Daily Amounts:	c. ☐ Actual ☒ Estimated	d. Description of Source:
O	4200 Lbs.		SCRAP YARD OPERATION

e. Operated	f. Storage and Handling:	g. Total Heat from waste:	h. Av. Heat Value
6 - 8 Hrs.	BARRELS + WIRE CONTAINERS, BATCH FEED	20,000 BTU/HR × 360 = 7,200 MBH (60% INSULATION)	8500 BTU/LB.

4

a. Auxiliary Fuel: Burner No. 1	b. Type and Make:	c. Ignition:	d. Location:
		☐ Spark ☐ Pilot ☐ Manual	☐ Pri. ☐ Sec.

e. Flame Failure Control	f. Timer (Max. Time)	g. Rating:
☐ Yes ☐ No	Hrs.	MBH

h. Burner No. 2	j. Type and Make:	k. Ignition:	L. Location
		☐ Spark ☐ Pilot ☐ Manual	☐ Pri. ☐ Sec.

m. Flame Failure Control:	n. Timer (Max. Time)	o. Rating:
☐ Yes ☐ No	Hrs.	MBH

5 Flow Rate of Combustion Gases at 1400°F. $\frac{32.016 \times 46.86}{3600} = .416$ CF/Sec.

6

a. Dimensions:	b. Velocities:
Flame Port W 24 In. DIA. L 452.39 □" In. Area 3.142 Sq.Ft.	Flame Port 10.4 Ft./Sec.
c. Down-Pass W 30 In. L 4.6 In. Area 11.25 Sq.Ft.	d. Down-Pass 37 Ft./Sec
e. Curtain Wall Port W 24 In. L 31 In. Area 5.17 Sq.Ft.	f. Curtain Wall Port 8.1 Ft./Sec.
g. Up-Pass W 30 In. L 43 In. Area 8.96 Sq.Ft.	h. Up-Pass 4.65 Ft./Sec
j. Breeching (I/s) W 22 In. L 22 In. Area 3.36 Sq.Ft.	k. Breeching 12.3 Ft./Sec

7

a. Stack [ ] Common [☒] Separate Height above Grade 40 Ft.	b. Construction:	c. Dimensions: Dia. 28 In. I.D. W ___ In. x L ___ In. I/s Area ___ Sq.Ft.	d. Velocity: ___ Ft./Sec
	STEEL - REFR. LINED		

8

a. Spark Arrester:	b. Construction:	c. Dimensions:
☒ Yes ☐ No	S.S 3x3 MESH	W ___ In. xL (Dia.) 28" In. x H 36"

9 a. Height of Tallest Bldg. within 150 Ft. 26'-0"

(OVER)

FORM 4615-046 (REV. 1-71)

11

a. Draft: ☐ Natural ☒ Induced 4225 ☒ Forced 1500 CFM @ 600

c. Dampers: d. ☐ Hor. Sliding e. ☐ Guillotine f. ☐ Butterfly g. ☐ Barometric In. Dia.

12

a. Actual: Area under curtain wall _____ Sq. Ft.

b. Actual Velocity _____ Ft/Sec.

c. (Center to Center Distance) Length of Horizontal Gas Travel 4.3 Ft.

d. Actual TO SCRUBBER Retention Time .35 Sec.

13

a. Calculated (On Basis of 9 FPS) Area under curtain wall _____ Sq. Ft.

b. Maximum Velocity 9 Ft/Sec.

c. Calculated Length of Horizontal Gas Travel 18.34 Ft.

d. Minimum TO SCRUBBER Retention Time 3.2 Sec.

14

Overlaps:

Between the top of the bridgewall and the bottom of the curtain wall _____ In.

Between the bottom of the curtain wall and the top of paving in the flue connection _____ In.

15

Refractory: Walls, Roof, Bridge Wall and Curtain Wall or Baffles Thickness 4½ - 9 - 5 - 6 - 6 In.

16

a. Exterior Walls: Red Brick Thickness _____ In.

b. Air Space _____ In.

c. U.S. Gauge Steel Casing No. 10

d. Insulation 3 In.

17

a. Provide drawing, dimensioned and to scale, in plan, elevation and as many sections as are needed to show the design, operation, location and clearance of incinerator; show also clearance of stack and breching. Drawings shall be approved by a registered professional engineer and bear his seal.

b. Provide plan and specifications of flue gas washer and any other air pollution control devices if used. ← INCLUDED IN INCINERATOR DRAWING # RCF 8001

c. Provide a sequence of operations for the incinerator system.

d. Provide a copy of the operating and maintenance instructions of the system:

e. Provide survey analysis of waste to be burned in system.

f. Complete incinerator control form IC for approval of a control device.

18

Title and No. of Drawings: AS REQ'D.

19

Will there be a charge for incineration? ☐ Yes ☒ No

Is the waste material generated on site? ☒ Yes ☐ No

☐ Primary or ☐ Accessory Use

Remarks:

This is a twin cell wire reclaiming furnace to be batch fed, with two separate secondary chambers, entering an enlarged common chamber 11'-10" long for flame travel & efficiency. It is designed to handle both units burning at one time dependant on the types of materials to be re-claimed.

Signature:

(SEAL)

Prepared by:

W. R. Baumann

P. F. B. Incinerator Co.

Rte. 1, Box 251, Genoa City, Wis.

Zip 53128

STATE OF ILLINOIS
ENVIRONMENTAL PROTECTION AGENCY
BUREAU OF AIR POLLUTION CONTROL
2200 CHURCHILL ROAD
SPRINGFIELD, ILLINOIS 62706

FOR INFORMATION TELEPHONE ~~525~~ 782-7327
(AREA 217)

INSTALLATION PERMIT APPLICATION FOR INCINERATORS

FOR OFFICE USE ONLY
I. D. No. ______
Permit No. ______
Date Examined ______ By ___

1. NAME OF OWNER: ALEX SIMKIN LAKE SALVAGE CO. INC. | ADDRESS OF OWNER: 2527 W. LAKE ST CHICAGO ILL.
2. NAME AND TITLE OF PERSON PREPARING APPLICATION: W. R. BAUMANN - OWNER - P.F.R INCINERATOR CO. | SIGNATURE: W R Baumann
3. NAME OF INSTALLATION: SAME AS #1 | ADDRESS OF INSTALLATION: (STREET, CITY, COUNTY, ZIP CODE) SAME AS #1

[X] INSIDE INCORPORATED LIMITS – CITY NAMED [ ] OUTSIDE LIMITS IN TOWNSHIP

4. DESCRIPTION OR SOURCE OF WASTE: SCRAP YARD OPERATION | TYPE WASTE: C | BTU/LB (AS FIRED) 8000 | DAILY AMOUNT: 4000 (LBS)(CU. FT.) [X] ESTIMATED [ ] ACTUAL

BASIS OF ESTIMATE: (INDICATE NUMBER UNITS AND SIZE AREA SERVED, INCLUDE FOOD SERVICE AREAS) VARIES AS PER DAILY PURCHASES

5. MAKE OF INCINERATOR: P.F.R. (Pollution Free Burning) | MODEL NO. SP 8001 | CLASS: III | RATED CAPACITY (LB./HR.) 600 | SPARK ARRESTER: S.S. 3X3 MESH MATERIAL AND SIZE OPENINGS
6. OPERATED: 6 - 8 HRS/DAY | STORAGE CAPACITY FOR WASTE: BARRELS + WIRE BASKETS AS COLLECTED CU. FT. | INSTALLATION: [X] INDOORS [ ] OUTDOORS
7. TOTAL HEAT RELEASE (ENTIRE UNIT) 16.7 M BTU/HR./CU.FT. | CHARGING METHOD [ ] TOP [ ] SIDE [X] END | HAVE NFPA STANDARDS BEEN COMPLIED WITH: [X] YES [ ] NO
8. % EXCESS AIR: APPROX. 50 | % AIR APPLIED AS OVERFIRE 10

PRIMARY COMBUSTION CHAMBER

9. VOLUME: 306 CU.FT. | EFFECTIVE GRATE AREA: SQ.FT. | HEARTH AREA: 42.5 SQ.FT. | TOTAL HEAT RELEASE: 27.7 m BTU/HR./CU.FT.

SECONDARY COMBUSTION CHAMBER

10. VOLUME: 201.3 CU.FT. | MAXIMUM GAS VELOCITY @ 1400 °F. IN FLAME PORT 32.0?? X 46.86 = .416 FPS | RETENTION TIME OF GAS IN SETTLING CHAMBER @ 1400 °F. ACTUAL .35 (MAX 5.2 TO SCRUBBER) SEC.

AUXILARY BURNERS

11. TYPE AND FUEL: INCINOMITE - GAS | NUMBER: 3 | CAPACITY OF EACH: 2 @ 800 M 1 @ 1,125 m BTU./HR. | FLAME FAILURE CONTROL: YES | TIMER MAX. TIME: PYROMETER CONTROLLED

DAMPERS

12. [X] HORIZONTAL SLIDING [ ] GUILLOTINE [ ] BUTTERFLY QUICKDRAFT | [ ] BAROMETRIC DIA (INCHES)

DRAFT

13. [ ] NATURAL / [X] INDUCED / [X] FORCED INDUCED @ 4225 FORCED @ 1500 CFM AT 600 °F

OVERLAPS

14. BETWEEN THE TOP OF THE BRIDGEWALL AND BOTTOM OF CURTAIN WALL INCHES
BETWEEN THE BOTTOM OF CURTAIN WALL AND TOP PAVING IN FLUE CONNECTION INCHES

GAS CLEANING DEVICES

15. TYPE SPRAYS - CONE TYPE LOW ENERGY | MANUFACTURER P.F.R. INCINERATOR | CAPACITY 15 GAL @ 30 P.S.I./M SCFM | EFFICIENCY 103 SF CONTACT

STACK

16. HEIGHT ABOVE GRADE 40 FT. | MATERIALS OF CONSTRUCTION STEEL - CASTABLE LINED | INSIDE DIAMETER 28 INCHES
HEIGHT NEAREST OBSTRUCTION 20 | DISTANCE TO NEAREST OBSTRUCTION - 150

17. EXPECTED DATE OF COMPLETION: OCT. 1974

18. PROVIDE DRAWING(S) DIMENSIONED, IN PLAN ELEVATION AND AS MANY SECTIONS AS ARE NECESSARY TO SHOW THE DESIGN, OPERATION AND LOCATION OF THE INCINERATOR INCLUDING STACK AND BREECHING AND AUXILARY GAS CLEANING DEVICES, IF USED, AND FLAME PORT DIMENSIONS.

19. TOTAL INSTALLED COST INCINERATOR $36,950.00 | COST OF GAS CLEANING DEVICES Incl.
TAX RELIEF APPLIED FOR [ ] YES [ ] NO | DATE APPLIED FOR: | NO. OF TAX FORM:

EPA-APC-9

STATE OF ILLINOIS
ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF AIR POLLUTION CONTROL
2200 CHURCHILL ROAD
SPRINGFIELD, ILLINOIS 62706

APPLICATION FOR A PERMIT (A)	FOR AGENCY USE ONLY
☒ CONSTRUCT — ☒ OPERATE	I. D. NO. ______
	PERMIT NO. ______
NAME OF EQUIPMENT TO BE CONSTRUCTED OR OPERATED: WIRE RECLAIMING FURNACE (B)	DATE ______

1a. NAME OF OWNER: ALEX SIMKIN		2a. NAME OF OPERATOR: EMPLOYEES OF LAKE SALVAGE CO., INC.	
1b. STREET ADDRESS OF OWNER: 2527 W. LAKE ST.		2b. STREET ADDRESS OF OPERATOR: 2527 W LAKE ST	
1c. CITY OF OWNER: CHICAGO		2c. CITY OF OPERATOR: CHICAGO	
1d. STATE OF OWNER: ILLINOIS	1e. ZIP CODE:	2d. STATE OF OPERATOR: ILLINOIS	2e. ZIP CODE:

3a. NAME OF CORPORATE DIVISION OR PLANT: LAKE SALVAGE CO., INC.		3b. STREET ADDRESS OF EMISSION SOURCE: 2527 W. LAKE ST		
3c. CITY OF EMISSION SOURCE: CHICAGO	3d. LOCATED WITHIN CITY LIMITS: ☒ YES ☐ NO	3e. TOWNSHIP:	3f. COUNTY: COOK	3g. ZIP CODE:

4. ALL CORRESPONDENCE TO: (NAME OF INDIVIDUAL) ALEX SIMKIN	5. TELEPHONE NUMBER FOR AGENCY TO CALL: TA 9-8882 (312)
6. ADDRESS FOR CORRESPONDENCE: (CHECK ONLY ONE) ☒ OWNER: ☐ OPERATOR ☐ EMISSION SOURCE	7. YOUR ID NUMBER FOR THIS APPLICATION: (C) SP-5001

8. THE UNDERSIGNED HEREBY MAKES APPLICATION FOR A PERMIT AND CERTIFIES THAT THE STATEMENTS CONTAINED HEREIN ARE TRUE AND CORRECT, AND FURTHER CERTIFIES THAT ALL PREVIOUSLY SUBMITTED INFORMATION REFERENCED IN THIS APPLICATION REMAINS TRUE, CORRECT AND CURRENT. BY AFFIXING HIS SIGNATURE HERETO HE FURTHER CERTIFIES THAT HE IS AUTHORIZED TO EXECUTE THIS APPLICATION.

AUTHORIZED SIGNATURE(S): (D)

BY [signature] SIGNATURE — DATE [illegible]	BY ______ SIGNATURE — DATE
WAYNE R. BACHMANN — TYPED OR PRINTED NAME OF SIGNER	TYPED OR PRINTED NAME OF SIGNER
OWNER - P.E.B. INCINERATOR CO. — TITLE OF SIGNER	TITLE OF SIGNER

(A) THIS FORM IS TO PROVIDE THE AGENCY WITH GENERAL INFORMATION ABOUT THE EQUIPMENT TO BE CONSTRUCTED OR OPERATED. THIS FORM MAY ONLY BE USED TO REQUEST ONE TYPE OF PERMIT - CONSTRUCTION OR OPERATION - AND NOT BOTH.

(B) CLEARLY IDENTIFY THE GENERIC NAME OF THE EQUIPMENT TO BE CONSTRUCTED OR OPERATED. SUCH IDENTIFICATION WILL APPEAR ON THE PERMIT WHICH MAY BE ISSUED PURSUANT TO THIS APPLICATION. THIS FORM MUST BE ACCOMPANIED BY THE APPLICABLE ADDENDA.

(C) PROVIDE A NUMBER IN ITEM 7 ABOVE WHICH YOU WOULD LIKE THE AGENCY TO USE FOR IDENTIFICATION OF YOUR EQUIPMENT. YOUR IDENTIFICATION NUMBER WILL BE REFERENCED IN ALL CORRESPONDENCE, RELATIVE TO THIS APPLICATION, FROM THIS AGENCY. YOUR IDENTIFICATION NUMBER MUST NOT EXCEED TEN (10) CHARACTERS.

(D) THIS APPLICATION MUST BE SIGNED IN ACCORDANCE WITH PCB REGS., CHAPTER 2, PART 1, RULE 103(a)(4) OR 103(b)(5) WHICH STATES: "ALL APPLICATIONS AND SUPPLEMENTS THERETO SHALL BE SIGNED BY THE OWNER AND OPERATOR OF THE EMISSION SOURCE OR AIR POLLUTION CONTROL EQUIPMENT, OR THEIR AUTHORIZED AGENT, AND SHALL BE ACCOMPANIED BY EVIDENCE OF AUTHORITY TO SIGN THE APPLICATION."

IF THE OWNER OR OPERATOR IS A CORPORATION, SUCH CORPORATION MUST HAVE ON FILE WITH THE AGENCY A CERTIFIED COPY OF A RESOLUTION OF THE CORPORATION'S BOARD OF DIRECTORS AUTHORIZING THE PERSONS SIGNING THIS APPLICATION TO CAUSE OR ALLOW THE CONSTRUCTION OR OPERATION OF THE EQUIPMENT TO BE COVERED BY THE PERMIT.

9. AN OPERATING PERMIT APPLICATION MUST BE SUBMITTED IN DUPLICATE.
A CONSTRUCTION PERMIT APPLICATION FOR CONSTRUCTION IN COOK COUNTY OUTSIDE OF THE CORPORATE LIMITS OF CHICAGO MUST BE SUBMITTED IN QUADRUPLICATE.
A CONSTRUCTION PERMIT APPLICATION IN ALL OTHER LOCATIONS MUST BE SUBMITTED IN TRIPLICATE.

10. THE APPLICANT SHALL SUBMIT A PLOT PLAN AND MAP SHOWING DISTANCES TO THE NEAREST BOUNDARY OF THE PROPERTY ON WHICH THE OPERATION IS LOCATED AND DISTANCES TO THE NEAREST RESIDENCES, LODGINGS, NURSING HOMES, HOSPITALS, SCHOOLS AND COMMERCIAL AND MANUFACTURING ESTABLISHMENTS. IF SUCH A PLOT PLAN AND MAP HAS ALREADY BEEN SUBMITTED, INDICATE THE ASSOCIATED AGENCY I.D. NUMBER AND PERMIT APPLICATION NUMBER. AGENCY I.D. NO. _____ APPLICATION NO. _____

11. THE APPLICANT SHALL SUBMIT A PROCESS FLOW DIAGRAM DEPICTING ALL EMISSION SOURCES AND ALL AIR POLLUTION CONTROL EQUIPMENT COVERED BY THIS PERMIT APPLICATION. THE DIAGRAM SHALL INCLUDE LABELS FOR EACH EMISSION SOURCE AND EACH ITEM OF AIR POLLUTION CONTROL EQUIPMENT, AND SHALL SET FORTH MAXIMUM FLOW RATES FOR (1) ALL PROCESSING EQUIPMENT, (2) ALL AIR POLLUTION CONTROL EQUIPMENT, (3) ALL EMISSION SOURCES, AND (4) ALL STACKS AND VENTS. NUMBER OF SHEETS: _____ DRAWING NUMBER(S): _____

12. FOR EACH EMISSION SOURCE AND EACH ITEM OF AIR POLLUTION CONTROL EQUIPMENT IDENTIFIED ON THE PROCESS FLOW DIAGRAM, THE APPLICANT SHALL COMPLETE AND SUBMIT THE APPLICABLE PERMIT APPLICATION FORMS. THE FLOW DIAGRAM SHALL INDICATE THROUGH WHICH STACK OR VENT AN EMISSION SOURCE OR ITS RELATED AIR POLLUTION CONTROL EQUIPMENT IS EXHAUSTED. IF IT IS EXHAUSTED WITHIN A BUILDING, SO INDICATE.

13. IF THIS IS AN APPLICATION FOR AN OPERATING PERMIT, AND THE APPLICANT IS INCORPORATING BY REFERENCE PREVIOUSLY GRANTED INSTALLATION OR CONSTRUCTION PERMITS, HE SHALL COMPLETE FORM APC-210, ENTITLED "DATA AND INFORMATION -- INCORPORATION BY REFERENCE."

14. IF THIS IS AN APPLICATION FOR AN OPERATING PERMIT, AND THE STARTUP OF ANY EMISSION SOURCE DESCRIBED BY THIS APPLICATION PRODUCES AN AIR CONTAMINANT IN EXCESS OF APPLICABLE STANDARDS, THE APPLICANT MAY REQUEST PERMISSION TO EXCEED SUCH STANDARDS BY COMPLETING FORM APC-203, ENTITLED "OPERATION DURING STARTUP."

15. IF THIS IS AN APPLICATION FOR AN OPERATING PERMIT, AND THE APPLICANT IS APPLYING FOR PERMISSION TO OPERATE AN EMISSION SOURCE DURING MALFUNCTIONS OR BREAKDOWNS PURSUANT TO PCB REGS., CHAPTER 2, RULE 105, THE APPLICANT MAY REQUEST SUCH PERMISSION BY COMPLETING FORM APC-204, ENTITLED "OPERATION DURING MALFUNCTION AND BREAKDOWN."

16. IF THIS IS AN APPLICATION FOR AN OPERATING PERMIT AND ALL OR ANY PART OF THE PROCESS MUST BE CONTROLLED OR MODIFIED TO COMPLY WITH APPLICABLE REGULATIONS, THE APPLICANT SHALL COMPLETE FORM APC-202, ENTITLED "COMPLIANCE PROGRAM & PROJECT COMPLETION SCHEDULE."

17. IF THIS IS AN APPLICATION FOR AN OPERATING PERMIT, DOES THE OPERATION COVERED BY THIS APPLICATION REQUIRE AN EPISODE ACTION PLAN? ☐ YES ☐ NO

18. WAS EACH EMISSION SOURCE COVERED BY THIS APPLICATION, AS OF APRIL 14, 1972, IN COMPLIANCE WITH THE "RULES AND REGULATIONS GOVERNING THE CONTROL OF AIR POLLUTION," ADOPTED BY THE FORMER AIR POLLUTION CONTROL BOARD AND CONTINUED EFFECTIVE PURSUANT TO SECTION 49(c) OF THE ENVIRONMENTAL PROTECTION ACT? ☐ YES ☐ NO

19. IF THIS IS AN APPLICATION FOR AN OPERATING PERMIT, WAS THE OPERATION THE SUBJECT OF A VARIANCE PETITION FILED WITH THE ILLINOIS POLLUTION CONTROL BOARD ON OR BEFORE JUNE 13, 1972? ☐ YES ☐ NO

IF "YES," CITE PCB NUMBER(S): _____ DATE OF BOARD ORDER: _____

HAD THE APPLICANT ON OR BEFORE APRIL 14, 1972, COMMENCED CONSTRUCTION OF EQUIPMENT OR MODIFICATIONS SUFFICIENT TO ACHIEVE COMPLIANCE WITH THE APPLICABLE LIMITATIONS OF THE "RULES AND REGULATIONS GOVERNING THE CONTROL OF AIR POLLUTION," ADOPTED BY THE FORMER AIR POLLUTION CONTROL BOARD AND CONTINUED EFFECTIVE PURSUANT TO SECTION 49(c) OF THE ENVIRONMENTAL PROTECTION ACT? ☐ YES ☐ NO

IF "NO," EXPLAIN IN DETAIL AND MARK YOUR EXPLANATION AS EXHIBIT D.

TOTAL NUMBER OF PAGES IN EXHIBIT D: _____

20. IF THIS IS AN APPLICATION FOR AN OPERATING PERMIT, THE APPLICANT SHALL SUBMIT AN ESTIMATE OF THE MAXIMUM ONE-HOUR AMOUNTS OF PARTICULATE MATTER, SULFUR DIOXIDE, CARBON MONOXIDE, OXIDES OF NITROGEN, AND ORGANIC MATERIAL EMITTED FROM ALL SOURCES LOCATED ON THE PLANT OR PREMISES. THIS ESTIMATE SHALL INCLUDE ALL EMISSION SOURCES LOCATED ON THE APPLICANT'S PREMISES AND NOT JUST THE EMISSION SOURCES DESCRIBED IN THIS APPLICATION.

MATERIAL	MAXIMUM ONE-HOUR AMOUNTS	MATERIAL	MAXIMUM ONE-HOUR AMOUNTS	MATERIAL	MAXIMUM ONE-HOUR AMOUNTS
PARTICULATE MATTER	_____ LB	SULFUR DIOXIDE	_____ LB	NITROGEN OXIDES	_____ LB
ORGANIC MATERIAL	_____ LB	CARBON MONOXIDE	_____ LB		

21. WHAT IS THE SIZE (IN ACRES) OF APPLICANT'S PREMISES?

22. LIST AND IDENTIFY ALL FORMS, EXHIBITS, AND OTHER INFORMATION SUBMITTED AS PART OF THIS APPLICATION. PLEASE NUMBER EVERY PAGE AND STATE THE TOTAL NUMBER OF PAGES IN THIS APPLICATION.

REPORT OF RESULTS
OF
PARTICULATE EMISSION TESTS
ON
MODEL RCF 8001 INCINERATOR
AT
LAKE SALVAGE CO.
CHICAGO, ILLINOIS
December 2,1975

TABLE OF CONTENTS

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REPORT OF RESULTS
OF
PARTICULATE EMISSION TESTS
ON
MODEL RCF 8001 INCINERATOR
AT
LAKE SALVAGE CO.
CHICAGO, ILLINOIS
December 2,1975

SUMMARY OF RESULTS

Particulate emission tests were conducted on the effluents of Model RCF 8001 Incinerator at Lake Salvage Co. ,Chicago, Illinois.

Test results determined by sampling from the stack after the scrubber of the incinerator as described in this report , are summarized on the following page.

CABLE ADDRESS COMTECO

COMMERCIAL TESTING & ENGINEERING CO.
GENERAL OFFICES: 220 NORTH LA SALLE STREET, CHICAGO, ILLINOIS 60601 • AREA CODE 312 726-0434

DATA SUMMARY

TEST	REFUSE CHARGED LB/HR	EMISSION CONCENTRATION*								TOTAL EMISSION LB/HR	GAS EMISSION	EXCESS AIR	SMOKE OBSERVATION
		GRAINS/SCF		GRAINS/SCF AT 12% CO_2**		LB PARTICULATE PER 100 LB REFUSE CHARGED		LB PARTICULATE PER 1000 LB GAS			PPM CO AT 50% EXCESS AIR	%	
		SOLIDS	TOTAL	SOLIDS	TOTAL	SOLIDS	TOTAL	SOLIDS	TOTAL				
1	600	0.0292	0.0305	0.0876	0.0915	0.3117	0.3267	0.0531	0.0557	1.96	156	367	No Visible emissions
2	600	0.0382	0.0394	0.1066	0.1099	0.4033	0.4150	0.0697	0.0717	2.49	146	338	"
3	600	0.0300	0.0315	0.0837	0.0879	0.3200	0.3367	0.0545	0.0573	2.02	164	311	"
AVE.	600	0.0325	0.0338	0.0926	0.0964	0.3450	0.3595	0.0591	0.0616	2.16	155	338.7	"

*Solids are particulates collected in the probe, cyclone, and on the filter. Total particulates include condensibles and residue from impinger bottles.

**Correction to 12% CO_2 resulting from combustion of waste only.

INRODUCTION

On December 2,1975 COMMERCIAL TESTING & ENGINEERING CO., Environmental Testing Division conducted an emission study on Model RCF 8001 Incinerator at Lake Salvage Co., Chicago, Illinois.

PERSONNEL

COMMERCIAL TESTING & ENGINEERING CO. was represented at the tests by Messrs. R. Silloriquez, R. Hessenberger and P. Gaetano. Mr. A. Simkin of Lake Salvage Co. and Messrs. W. Bauman and M. Smith of P.F.B. Incinerator Co. coordinated the tests to fit the operational schedule.

OBJECT

The tests were conducted to determine the particulate emissions from the effluents of Model RCF 8001 Incinerator, burning Type 1 & 2 wires.

STACK TESTING AND ANALYTICAL PROCEDURES

The methods of testing employed were in accordance with the EPA Federal Register "Standards of Performance for New Stationary Sources", Volume 36, Number 247, dated December 23, 1971, and Addendum to Specifications for "Incinerator Testing at Federal Facilities" method.

The testing was conducted by sampling from the incinerator stack, using two EPA sampling trains. The cross-sectional area of each stack was divided into three equal area zones. Velocity pressure head readings (Pitot Traverse) were taken at the center of each zone. Sample points were at the center of each area zone and each point was sampled isokinetically as far as possible.

The effluents drawn through the probe were collected first in a glass cyclone, where particles greater than 5 microns in diameter were retained. Particles greater than 0.3 micron in diameter were collected on a glass fiber filter (MSA type 1106 BH), and the rest of the effluents were bubbled through a glass impinger train containing distilled water. Particles being collected by impaction in the impingers.

ANALYTICAL TECHNIQUES

The filter and any loose particulate from the sample container was dried in the oven and desiccated. It was weighed to a constant weight and the results reported to the nearest 0.1 milligram.

The acetone washings from the probe, cyclone, cyclone flask, and front half of the filter holder were transferred to a tared beaker and evaporated to dryness at ambient temperature and pressure. The washings were then desiccated and weighed to a constant weight. The results were reported to the nearest 0.1 milligram.

Six (6) separate extractions were performed on the organic particulates collected in the impinger solution. Three (3) were performed using, on each occasion, 25 ml of chloroform and three (3) using 25 ml of ethyl ether.

The ether and chloroform extracts were combined and transferred to a tared beaker. The sample was evaporated at about 70 F until no solvent remained. It was desiccated and weighed to a constant weight. The results were reported to the nearest 0.1 milligram. The impinger solution remaining after extraction of the organics was evaporated to dryness on a hot plate and the residue weighed to the nearest 0.1 milligram and reported.

The laboratory determined the amount of moisture absorbed by weighing the spent silica gel to the nearest 0.1 gram and making appropriate calculations. The amount of water so found was added to that condensed in the impingers.

The acetone washings from the back half of the filter holder fritted support, connectors, and the first three (3) Greenburg-Smith impingers was transferred to a tared beaker and evaporated to dryness at ambient temperature and pressure. It was desiccated and weighed to a constant weight. The results were reported to the nearest 0.1 milligram.

GAS ANALYSIS FOR CARBON DIOXIDE, CARBON MONOXIDE, EXCESS AIR, AND DRY MOLECULAR WEIGHT

An integrated gas-sampling train was used for gas analysis. The sample was extracted from a sampling point at low sampling rate to ensure a representative gas sample per test. An integrated gas sample was also taken during the preheating period. The samples were analyzed for its components using a gas chromatograph. Fyrites and Draeger tubes were also used to check the fixed gas composition on the test site.

DISCUSSION

The average test results of particulate emissions from the gas-fired incinerator Model RCF 8001 are as follows:

	GRAIN/SCF at 12% CO_2
SOLIDS	0.0926
TOTAL (INCLUDING CONDENSIBLES)	0.0964

The incinerator was burning Type 1 & 2 wires at the rate of 600 lb./hr. During the whole testing period, both the primary and secondary burners were operating with the heat input of 450,000 Btu/hr and 2,450,000 Btu/hr respectively.

Three tests were run in one day and all were within the range of isokineticity.

The State of Illinois Air Pollution Control Regulations Rule 203e-4 state:"No person shall cause or allow the emission of particulate matter into the atmosphere from all other new incinerators to exceed 0.10 grains per standard cubic foot of effluent gas corrected to 12 % carbon dioxide."

The average particulate emission results in grains per cubic foot corrected to 12% carbon dioxide are below the allowable limit and is therefore in compliance.

Respectfully submitted:

COMMERCIAL TESTING & ENGINEERING CO.
Environmental Testing Division

BERT SILLORIQUEZ
Environmental Chemist

RUSSELL E. BOGER
Manager

GENERAL INFORMATION

Date of Test	December 2,1975
Plant Designation	LAKE SALVAGE CO.
Location	Chicago,Illinois
Owner	Lake Salvage Co.
Effluents from	Model RCF 8001 Incinerator
Object of Test	To determine particulate emission
Tests conducted by	COMMERCIAL TESTING & ENGINEERING CO.
TYPE OF PARTICULATE SAMPLERS USED	
(a) Inside diameter of the sampling nozzle	1/4
(b) Inside diameter of the tube from nozzle to impinger	1/2
(c) Kind of filter or other device used for separating the sampled particulate	Glass cyclone and flask followed by glass fiber filter and an impinger train.(RAC)
(d) Location of filter (inside or outside of duct)	Outside
(e) Metering device used	Rockwell Dry Gas Meter
(f) Kind of exhauster used	Vacuum Pump

DESCRIPTIONS, DIMENSIONS, ETC.

Type of dust	Particulates from burning Type 1&2 wires
Cross-sectional area of sampling section	4.28 square feet
General direction of gas flow in duct at sampling station	Vertically upwards
Number of points used for traverse at sampling station	
Pitot Traverse	12
Sampling Traverse	12
Number of particulate samplers used at sampling station	2
Type of velocity-pressure tubes used	Stauscheibe Pitot Tube

TEST DATA & RESULTS

PARTICULATES

Run Number	1	2	3
Sampling Date	12-2-75	12-2-75	12-2-75
Sampling Time	11:15-12:15	12:35-1:32	1:45-2:45
Duration of Run, minutes	60	60	60
Total Sampling Time, minutes	120	120	120
Conditions Peculiar to Run	None	None	None
Barometric Pressure, in. Hg.	29.98	29.98	29.98
Static Pressure, in. Hg.	-0.02	0.02	-0.02
System Pressure, in. Hg.	29.96	29.96	29,96
Pitot Tube Factor	0.802	0.802	0.802
Metered Gas Volume, $ft.^3$	73.30	73.50	74.00
Meter Temperature, ^oF	52.71	58.25	60.04
Flue Gas Temperature, ^oF	220	220	220
Average Orifice Pressure Drop, in. Hg.	0.10	0.10	0.10
Sample Gas Volume @ STP, $ft.^3$	76.06	75.55	75.80
Average Velocity Head, in w.g.	0.4096	0.4096	0.4096
Condensate Collected, ml	60	60	55

PARTICULATES
(continued)

Silica Water Gain, ml	15	20	25
Total Condensate, ml	75	80	80
Total Volume of Water Vapor @ STP, scf	3.55	3.79	3.79
Total Sample Gas Volume @ STPC, scf	79.61	79.34	79.60
Moisture Content, %	4.47	4.78	4.76
Average Molecular Weight of Gas	28.87	28.87	28.95
Gas Density Ratio	1.0	1.0	1.0
Average Flue Gas Velocity, fpm	2349	2318	2345
Average Flue Gas Velocity @ nozzle, fpm	2493	2485	2493
Average Isokinetic Ratio	106.13	107.21	106.32
Flue Gas Flow Rate, ACFM	10053	9920	10036
Flue Gas Flow Rate, SCFM	7844	7740	7830
Mass Gas Flow Rate, lb/hr	35202	34734	35228

SUMMARY: PARTICULATE CONCENTRATION

Run Number	1	2	3
Grains/scf, Total	0.0305	0.0394	0.0315
Grains/scf, Solids	0.0292	0.0382	0.0300
Grains/scf at 12% CO_2, Total	0.0915	0.1099	0.0879
Grains/scf at 12% CO_2, Solids	0.0876	0.1066	0.0837
Lbs/100 lbs Refuse, Total	0.3267	0.4150	0.3367
Lbs/100 lbs Refuse, Solids	0.3117	0.4033	0.3200
Lbs/1000 lbs Gas (Wet Basis), Total	0.0557	0.0717	0.573
Lbs/1000 lbs Gas (Wet Bais), Solids	0.0531	0.0697	0.0545
Total Emission, lbs/hr	1.96	2.49	2.02

STACK GAS COMPOSITION DATA SHEET

COMPANY : LAKE SALVAGE CO, DATE : December 2,1975

LOCATION: Chicago. Illinois OPERATOR: R.S.

TEST NO.	TIME	CO_2	O_2	CO	N_2
		% BY VOLUME - DRY BASIS			
1	11:30-12:10	4.5	16.5	0.0050	79.0
2	12:45-1:20	4.8	16.2	0.0050	79.0
2	1:50- 2:30	4.8	16.0	0.0060	79.5

STACK GAS COMPOSITION DATA SHEET

COMPANY : LAKE SALVAGE CO. DATE : December 2,1975

LOCATION: Chicago, Illinois OPERATOR: R.S.

PRE-HEATING PERIOD

BURNERS ONLY

TEST NO.	TIME	CO_2	O_2	CO	N_2
		% BY VOLUME - DRY BASIS			
1	9:00-9:30	0.50	20.0	-	79.5
2.	9:35-10:00	0.50	20.0	-	79.50
AVE.	-	0.50	20.0	-	79.5

PARTICULATE MATTER DATA SHEET

TEST No.		1	2	3
F I L T E R S	A	0.0440	0.0580	0.0451
	B	0.0451	0.0651	0.0468
W A S H I N G S Probe, cyclones, flask, filter holder		0.0547	0.0641	0.0554
WEIGHT PARTICULATES (SOLIDS ONLY)		0.1438	0.1872	0.1473
C O N D E N S I B L E S				
O R G A N I C S (Extractions)		0.0042	0.0038	0.0051
I N O R G A N I C S (Evaporation)		0.0021	0.0020	0.0025
TOTAL WEIGHT PARTICULATES (Including Condensibles) (Gram)		0.1501	0.1930	0.1549

SYMBOLS USED FOR TEST CALCULATIONS

MS,MOLECULAR WEIGHT OF THE GAS ON WET BASIS

W,VAPOR VOLUME OF WATER AT STP, SCFCF

VMS,VOLUME OFGAS SAMPLED STP,SCF

I,%ISOKINETIC SAMPLING

UN,GAS VELOCITY IN NOZZLE,FPM

%W,PERCENT MOISTURE IN GAS BY VOL.

V ,TOTAL VOLUME OF GAS SAMPLED STP,S CF

GDR,GAS DENSITY RATIO

US,STACK GASVELOCITYFPS

ACFM,ACTUAL VOLUME FLOW

SCFM,GAS VOLUME FLOW STP

LBS/HR,WEIGHT OF GAS EMITTED

PARTICULATE CONCENTRATION SYMBOLS

GR/SCF,GRAINS/SCF C1

LBS/HR,POUNDS PER HOUR EMISSION

LBS/SCF ON A DRY BASIS,CS2

LBS/SCF ON A WET BASIS,CS

EXPLANATION OF CONSTANTS

C1 =TEMP./PRESS. STP=530/29.92= 17.71

RO OF H2O =WATER DENSITY (GRAM/ML)=1.0
MH2O =MOLECULAR WEIGHT OF WATER= 18
R =IDEAL GAS CONSTANT= 21.83

C2 =(RO H2O/MH2O)(TEMP/PRESS)R=0.0474 CU.FT/ML

C3 = 85.45 (FT.-LB)/SEC.-LBMOLE-R

C4 = 4X144XPRESS./PIXTEMP.= 10.35 WHERE PI=3.1414

C5 =DENSITY OF AIR STP= 0.075 LBS/SCF

VELOCITY HEAD READINGS, IN. OF W.G

TEST-I

ΔP	$\sqrt{\Delta P}$	ΔP	$\sqrt{\Delta P}$
.30	.55	.40	.63
.36	.60	.45	.67
.37	.61	.47	.69
.45	.67	.42	.65
.45	.67	.45	.67
.43	.66	.45	.67

TEST DATA-EPA METHOD

AVERAGE SQUARE ROUTE OF DP	= .64
PS, STATIC PRESSURE, IN. HG	= -.02
PB, BAROMETRIC PRESSURE, IN. HG	= 29.98
PA, SYSTEM PRESS., PA=PB+PS, IN. HG	= 29.96
TS, AVEG. INLET TEMP., R	= 680
CP, PITOTTUBE FACTOR	= .802
VM, METERED GAS VOLUME, CF	= 73.20
TM, AVEG. METER TEMP., R	= 512.71
DH, AVEG. PRESSUREDROPM, IN. HG	= .10
VLC, VOLUME OF CONDENSED WATER, CC	= 75
DS, SQUARE NOZZLE DIAMETER, IN. SQURE	= .0625
O, TOTAL SAMPLING TIME, MIN.	= 120
CO2, CARBON DIOXIDE, DRY BASIS	= .0450
O2, OXYGEN DRY BASIS	= .1650
CO, CARBON MONOXIDE DRY BASIS	= -.0000
N2, NITOOGEN DRY BASIS	= .7900
AS, AREA OF SAMPLING SECTION, SQ. FT.	= 4.28
MN, TOTAL WEIGHT OF PARTICULATES, GRAMS	= .1501

TEST NO. 1 CALCULATIONS COMPANY LAKE FALVAGE

DATE OF TEST 12-2-75

TIME TEST WAS CONDUCTED------

****

VMS•SCF = 17.71XVMX(PR+DH)/TM=17.71X 73.20X(29.98+ .10)/512.71= 76.0

****

VW•SCF = *0.0474XVIC=0.0474X 75= 3.55

********** **********

V•SCF = VW+VMS= 3.55+ 76.06= 79.61

****

%W = (VW/V)X100=(3.55/ 79.61)X100= 4.47

****

H2O=18XMD=18X .0447 = .804

O2=32XO2XMWF=32X .1650X .9553 = 5.044

CO2=44XCO2XMWF=44X .0450X .9553= 1.892

N2=28XN2XMWF=28X .7900X .9553 =21.132

CO=28XCOXMWF=28X-.0000X .9553 = .000

GMD=MWT/28.95=28.872/28.95=1.00

****

US•FPS =85.45*CPX(DPXTS/PAXMS)=85.45X .802X(.64X 680/29.96X28.87= 39.15

****

UN•FPM =10.35XVXTS/OXPAXDS=10.35X 79.61X 680/ 120X29.96X .0625= 2493

****

I=(UN/US)X100= X(2493/ 2349.04) =106.13

****

ACFM =USXASX60= 39.15X 4.28X60= 10053

****

SCFM =ACFMX530XP/TSX29.92= 10053X530X29.96/ 680X29.92= 7844

****

LBS/HR =0.075X60XGDRXSCFM=0.075X60X1.00X 7844= 35202

****

PARTICULATE CONCENTRATION EMISSIONS

CS1=MNX15.43/VMS= .1501X15.43/ 76.06= .0305
CS2 =0.0014XCS1=0.00014X .0305= .0000044

CS =(CS2XVMS)/V=(.0000044X 76.06)/ 79.61= .0000042

LBS/HP =CSXSCFMX60= .0000042X 7844X60= 1.96

****

MN=WEIGHT OF PARTICULATES WITHOUT CONDENCIBLES= .1438

PARTICULATE CONCENTRATION EMISSIONS

CS1=MNX15.43/VMS= .1438X15.43/ 76.06= .0292
CS2 =0.0014XCS1=0.00014X .0292= .0000042

CS =(CS2XVMS)/V=(.0000042X 76.06)/ 79.61= .0000040

LBS/HP =CSXSCFMX60= .0000040X 7844X60= 1.87

****

POINT VELOCITIES IN FPS

.55	33.28	.63	38.43
.60	36.46	.67	40.76
.61	36.96	.69	41.66
.67	40.76	.65	39.38
.67	40.76	.67	40.76
.66	39.84	.67	40.76

EXCESS AIR CALCULATIONS

TEST NO. 1

$$\text{EXCESS AIR RATIO, } R = \frac{O_2}{0.266N_2 - O_2}$$

$$= \frac{0.165}{0.266\ (0.79) - 0.165}$$

$$= 3.67$$

$$\text{PERCENT EXCESS AIR} = 3.67 \times 100$$

$$= 367$$

$$\text{PPM CO AT 50 \% EXCESS AIR} = \text{Ppm CO} \times \frac{1 + R}{1.5}$$

$$= 50 \times \frac{1 + 3.67}{1.5}$$

$$= 156$$

PARTICULATE CONCENTRATION

TEST NO. 1

$$\text{Grains/Scf corrected to 12 \% } CO_2 = \text{Grains/Scf} \times \frac{12}{CO_2 \text{ (Waste)}}$$

A. SOLIDS ONLY

$$\text{Grains/Scf} = 0.0292 \times \frac{12}{4.5 - 0.5}$$

$$= 0.0876$$

B. TOTAL (SOLIDS + CONDENSIBLES)

$$\text{Grains/Scf} = 0.0305 \times \frac{12}{4.5 - 0.5}$$

$$= 0.0915$$

VELOCITY HEAD READINGS, IN. OF W.G

test-2

ΔP	√ΔP	ΔP	√ΔP
.35	.59	.35	.59
.35	.59	.40	.63
.40	.63	.45	.67
.45	.67	.42	.65
.45	.67	.40	.63
.42	.65	.42	.65

TEST DATA-EPA METHOD

AVERAGE SQUARE ROUTE OF DP.	= .64
PS, STATIC PRESSURE, IN. HG	= -.02
PB. BROMETRIC PRESSURE, IN. HG	= 29.99
PA. SYSTEM PRESS., PA=PB+PS, IN. HG	= 29.96
TS, AVEG. INLET TEMP., R	= 680
CP. PITOTTUBE FACTOR	= .802
VM. METERED GAS VOLUME, CF	= 73.50
TM, AVEG. METER TEMP., R	= 518.25
DH. AVEG. PRESSUREDROPM. IN. HG	= .10
VIC. VOLUME OF CONDENSED WATER, CC	= 80
DS, SQUARE NOZZLE DIAMETER, IN. SQURE	= .0625
O, TOTAL SAMPLING TIME, MIN.	= 120
CO2, CARBON DIOXIDE, DRY BASIS	= .0480
O2, OXYGEN DRY BASIS	= .1620
CO. CARBON MONOXIDE DRY BASIS	= -.0000
N2, NITOOGEN DRY BASIS	= .7900
AS. AREA OF SAMPLING SECTION, SQ. FT.	= 4.28
MN. TOTAL WEIGHT OF PARTICULATES, GRAMS	= .1930

TEST NO. 2 CALCULATIONS COMPANY LAKE SALVAGE

DATE OF TEST 12-2-75

TIME TEST WAS CONDUCTED------

VMS.SCF = 17.71XVMX(PR+DH)/TM=17.71X 73.50X(29.98+ .10)/518.25= 75.55

VW.SCF = *0.0474XVIC=0.0474X 80= 3.79

V.SCF = VW+VMS= 3.79+ 75.55= 79.34

%W = (VW/V)X100=(3.79/ 79.34)X100= 4.78

H2O=18XMO=18X .0478 = .860

O2=32XO2XMWF=32X .1620X .9522 = 4.936

CO2=44XCO2XMWF=44X .0480X .9522= 2.011

N2=28XN2XMWF=28X .7900X .9522 =21.063

CO=28XCOXMWF=28X-.0000X .9522 = .000

GDR=MWT/28.95=28.870/28.95=1.00

US.FPS =85.45*CPX(DPXTS/PAXMS)=85.45X .802X(.64X 680/29.96X23.87= 38.63

UN.FPM =10.35XVXTS/OXPAXDS=10.35X 79.34X 680/ 120X29.96X .0625= 2485

I=(UN/US)X100= X(2485/ 2317.79) =107.21

ACFM =USXASX60= 38.63X 4.28X60= 9920

SCFM =ACFMX530XP/TSX29.92= 9920X530X29.96/ 680X29.92= 7740

LBS/HR =0.075X60XGDRXSCFM=0.075X60X1.00X 7740= 34734

PARTICULATE CONCENTRATION EMISSIONS

CS1=MNX15.43/VMS= .1930X15.43/ 75.55= .0394
CS2 =0.0014XCS1=0.00014X .0394= .0000056

CS =(CS2XVMS)/V=(.0000056X 75.55)/ 79.34= .0000054

LBS/HR =CSXSCFMX60= .0000054X 7740X60= 2.49

****

MN=WEIGHT OF PARTICULATES WITHOUT CONDENCIBLES= .1872

PARTICULATE CONCENTRATION EMISSIONS

CS1=MNX15.43/VMS= .1872X15.43/ 75.55= .0382
CS2 =0.0014XCS1=0.00014X .0382= .0000055

CS =(CS2XVMS)/V=(.0000055X 75.55)/ 79.34= .0000052

LBS/HR =CSXSCFMX60= .0000052X 7740X60= 2.42

****

POINT VELOCITIES IN FPS

.59	35.95	.59	35.95
.59	35.95	.63	38.43
.63	38.43	.67	40.76
.67	40.76	.65	39.38
.67	40.76	.63	38.43
.65	39.38	.65	39.38

EXCESS AIR CALCULATIONS

TEST NO. 2

$$\text{EXCESS AIR RATIO, } R = \frac{O_2}{0.266N_2 - O_2}$$

$$= \frac{0.162}{0.266\ (0.79) - 0.162}$$

$$= 3.38$$

$$\text{PERCENT EXCESS AIR} = 3.38 \times 100$$

$$= 338$$

$$\text{PPM CO AT 50 \% EXCESS AIR} = \text{ppm CO} \times \frac{1 + R}{1.5}$$

$$= 50 \times \frac{1 + 3.38}{1.5}$$

$$= 146$$

PARTICULATE CONCENTRATION

TEST NO. 2

$$\text{Grains/Scf corrected to 12 \% } CO_2 = \text{Grains/Scf} \times \frac{12}{CO_2 \text{ (Waste)}}$$

A. SOLIDS ONLY

$$\text{Grains/Scf} = 0.0382 \times \frac{12}{4.8 - 0.5}$$

$$= 0.1066$$

B. TOTAL (SOLIDS + CONDENSIBLES)

$$\text{Grains/Scf} = 0.0394 \times \frac{12}{4.8 - 0.5}$$

$$= 0.1099$$

VELOCITY HEAD READINGS, IN. OF W.G

TEST - 3

ΔP	√ΔP	ΔP	√ΔP
.35	.59	.35	.59
.37	.61	.37	.61
.45	.67	.45	.67
.45	.67	.40	.63
.45	.67	.45	.67
.45	.67	.45	.67

TEST DATA-EPA METHOD

AVERAGE SQUARE ROUTE OF DP	= .64
PS, STATIC PRESSURE, IN. HG	= -.02
PB, BROMETRIC PRESSURE, IN. HG	= 29.98
PA, SYSTEM PRESS., PA=PB+PS, IN. HG	= 29.96
TS, AVEG. INLET TEMP., R	= 680
CP, PITOTTUBE FACTOR	= .802
VM, METERED GAS VOLUME, CF	= 74.00
TM, AVEG. METER TEMP., R	= 520.04
DH, AVEG. PRESSUREDROPM, IN. HG	= .10
C, VOLUME OF CONDENSED WATER, CC	= 80
DS, SQUARE NOZZLE DIAMETER, IN. SQURE	= .0625
O, TOTAL SAMPLING TIME, MIN.	= 120
CO2, CARBON DIOXIDE, DRY BASIS	= .0480
O2, OXYGEN DRY BASIS	= .1600
CO, CARBON MONOXIDE DRY BASIS	= -.0000
N2, NITOOGEN DRY BASIS	= .7950
AS, AREA OF SAMPLING SECTION, SQ. FT.	= 4.28
MN, TOTAL WEIGHT OF PARTICULATES, GRAMS	= .1549

TEST NO. 3 CALCULATIONS COMPANY LAKE SALVAGE

DATE OF TEST 12-2-75

TIME TEST WAS CONDUCTED------

VMS,SCF = 17.71XVMX(PB+DH)/TM=17.71X 74.00X(29.98+ .10)/520.04= 75.8

W,SCF = *0.0474XVIC=0.0474X 80= 3.79

V,SCF = VW+VMS= 3.79+ 75.80= 79.60

%W = (VW/V)X100=(3.79/ 79.60)X100= 4.76

H2O=18XMD=18X .0476 = .858

O2=32XO2XMWF=32X .1600X .9524 = 4.876

CO2=44XCO2XMWF=44X .0480X .9524= 2.011

N2=28XN2XMWF=28X .7950X .9524 =21.200

CO=28XCOXMWF=28X-.0000X .9524 = .000

GDR=MWT/28.95=28.945/28.95=1.00

US,FPS =85.45*CPX(DPXTS/PAXMS)=85.45X .802X(.64X 680/29.96X28.94= 39.08

UN,FPM =10.35XVXTS/OXPAXDS=10.35X 79.60X 680/ 120X29.96X .0625= 2493

I=(UN/US)X100= X(24937/ 2344.89) =106.32

ACFM =USXASX60= 39.08X 4.28X60= 10036

SCFM =ACFMX530XP/TSX29.92= 10036X530X29.96/ 680X29.92= 7830

LBS/HR =0.075X60XGDRXSCFM=0.075X60X1.00X 7830= 35228

PARTICULATE CONCENTRATION EMISSIONS

DATE: July 13, 1981 RECEIVED

TO: Sy Levine, Manager Region JUL 17 1981

FROM: Kerry Keller

ID # 031 600 EPK

Date of Investigation: July 9, 1981

SUBJECT:

FACILITY: Lake Salvage Co. Inc.

ADDRESS: 2527 W. Lake St., Chicago, Ih. 60612

CONTACT/TITLE: Mr. Alex Simkin - Owner

PRE-INVESTIGATION STATUS:

- ✓ Workplan Facility
- __ Quarterly Report
- __ Form 2
- __ Other
- __ Task Force, A
- __ On Program B
- __ NESHAPS, D
- ✓ Haz. Waste Inc., E
- __ NSPS, F
- __ Annual Inspection I
- __ Special Request, J
- __ Viol. (pot. health haz),
- __ Violator (Other), L
- __ Toxic Substance Source M
- __ Probable Mal'f N
- __ Non-Traditional, Inv., O
- __ Special Inv., P
- __ Special Hydrocarbons, Q

INSPECTION FINDINGS

- __ Emission Violation
- __ Permit Violation
- ✓ No Violation
- __ Warning Letter
- __ To Form 2. Report
- __ To Quarterly Report
- ✓ TAS Checked
- __ TAS Coded
- ✓ Form 177
- __ Flowform
- __ Malf'n - Wang

NARRATIVE: On July 9, 1981, an unannounced inspection was conducted of Lake Salvage Co. This facility is involved in the buying and selling of scrap metal. They also operate a wire burning incinerator. The incinerator is well maintained with no leaks observed. On the day of the inspection there was observed a slight amount of smoke (10-15% opacity), coming from the incinerator stack. Mr Simkin explained that as of late there have been a problem with two of the eight afterburners, in that they have been covered with soot and shutting

(Rev. 6/81)
EPA-90 (Rev. 6/75-20M)

Lake Salvage
July 13, 1984

off. We explained that this happens a couple times a year, and that he was planning on correcting the problem that afternoon by cleaning off all the burners.

The inspection revealed no violations and since the facility is a possible hazardous waste incinerator, a follow-up inspection will be made in October. No further action is required at this time.

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY MEMORANDUM

DATE: Aug 23, 1982

TO: Miles Zamco

FROM: Ghirish Narayen

SUBJECT: Flag File Changes

RECEIVED
SEP 01 1982
IEPA - DAPC - SPFLD

Person to Contact: _____

Please change the flag file on the following facility, as indicated:

[ ] Add to Flag File

[X] Delete from Flag File

Facility: Lake Salvage Co. Inc.
I.D. #: 031 600 EPK
Location: 2527. W. LAKE ST. CHICAGO. 60612

Reason: No known violation exist

cc: Bharat Mathur
Region I File
Joyce Salefske

IL 532-0570
PA 80 (r)

1 1112

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY MEMORANDUM

DATE: November 17, 1982 RECEIVED ID # 031 600 EPK

TO: Sy Levine, Region 1 Manager NOV 24 1982 Date of Inspection November 5, 1982

FROM: Kerry M. Keller IEPA - DAPC - SPFLD

SUBJECT:

FACILITY: Lake Salvage Co.

ADDRESS: 2527 W. Lake St., Chicago, IL. 60612

CONTACT/TITLE: Alex Simkin - Owner PHONE #: 829-8882

PRE-INVESTIGATION STATUS:

- ✓ Workplan Facility
- __ Quarterly Report
- __ Form 2 Report
- __ Others

- __ (A) Task Force
- __ (B) On Program
- __ (C) Violator
- __ (D) NESHAP
- ✓ (E) Haz. Waste Inc.
- __ (F) NSPS
- __ (G) Misc. HC Sources
- __ (I) Annual inspection

- __ (J) Special Request
- __ (N) Probable Malfunction
- __ (O) Non-Traditional
- __ (R) Random or Unannounced
- __ (S) HC Reduction in Chicago Area
- __ (T) TSP Levels in SE Cook County
- __ (Z) Petrochemical Plants

INSPECTION FINDINGS:

- __ Emission Violation
- __ Permit Violation
- ✓ No Violation

- __ Warning Letter
- __ To Form 2 Report
- __ To Quarterly Report

- ✓ TAS Checked
- __ TAS Coded
- ✓ Form 177
- __ Compliance Flowform
- __ Malfunction-Wang

NARRATIVE: On November 5, 1982, an unannounced inspection was conducted of Lake Salvage Co. in order to gather information for a Hazardous Waste Incinerator Special Project (see attached form). On the day of the inspection the incinerator was operating and no visible emissions were detected. The incinerator is controlled with both an afterburner and a wet scrubber.

No further action is required at this time.

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY 7.2mo MEMORANDUM

DATE: NOVEMBER 8, 1983

I.D. #: 031 600 EPK

TO: Sy Levine, Region I Manager

Date of Inspection: Oct 14, 1983

FROM: Harish Narayen HN

RECEIVED
NOV 10 1983
IEPA - DAPC - SPFLD

SUBJECT: FACILITY: LAKE SALVAGE CO. INC.

ADDRESS: 2527 W. LAKE ST CHICAGO 60612.

CONTACT/TITLE: Alex Simkin / owner. PHONE:

PRE-INVESTIGATION STATUS:

X Workplan	__(A) Task Force	__(R) Random/Non-traditiona
__Quarterly Report	__(B) On Program	__(S) HC Chicago
__Form 2	__(C) Violator	__(T) TSP Chicago
__Other	__(D) NESHAPS	__(U) A-1 (Act.≥100 t/y)
	__(F) NSPS	X (V) B Facility (unc.≤100)
	__(I) A-2 (unc.≥100, Act.≤100)	__(W) Multimedia Problems
	__(J) Special Request	__(X) Service Stations
	__(M) Toxics/Hazards	__(Z) Petrochemical Plants

INSPECTION FINDINGS:

__Emission Violation	__Warning Letter	X TAS Checked
__Permit Violation	__To Form 2 Report	X TAS Coded
__Permit Cond. Viol.	__To Quarterly Report	X Form 177
X No Violation		__Flowform
		__Malf(Wang)

NARRATIVE:

An investigation of the above facility was conducted on October 14, 1983 pursuant to workplan requirements. Mr Alex Simkin conducted a tour and provided the necessary information. The facility operates a wire burning incinerator. The incinerator is equipped with an afterburner. At the time of this investigation the incinerator was not in operation. Previous investigations revealed the incinerator to be in compliance. The facility has the necessary permits for its operation.

TAS data has been updated.

An investigation of the facility will be made at a later date to determine its compliance during operation.

E ATTACHED TO INSPECTION MEMORANDUMS - FOR INTERNAL AGENCY USE ONLY!

Illinois Environmental Protection Agency · 2200 Churchill Road, Springfield, IL 62706

(For Internal Use Only)

Date of Inspection: October 25, 1984

I.D.#: 031 600 EPK. R/D: 103

Facility: LAKE SALVAGE Co. INC.

Address: 2527. W. LAKE ST. CHICAGO. 60612

Contact/Title: Alex Simkin / owner Phone:

PRE-INVESTIGATION STATUS:

- [X] Workplan
- [ ] Quarterly Report
- [ ] MIR
- [ ] Other

- [ ] (A)Task Force
- [ ] (B)On Program
- [ ] (C)Violator
- [ ] (D)NESHAPS
- [ ] (F)NSPS
- [ ] (I)A-2
- [ ] (J)Special Request
- [ ] (M)Asbestos Demolition

- [ ] (R)Random/Non-Traditional
- [ ] (S)HC Chicago
- [ ] (T)TSP Chicago
- [ ] (U)A-1
- [X] (V)B Facility
- [ ] (W)Multi-Media Problems
- [ ] (X)Service Station
- [ ] (Z)Petrochemical Plants

INSPECTION FINDINGS:

- [ ] Emission Violation
- [ ] Permit Violation
- [ ] Permit Condition Violation
- [X] NO VIOLATION
- [ ] Flag File

- [ ] CIL
- [ ] To MIR
- [ ] To Quarterly Report
- [ ] Multi-Media Issue Possible
- [ ] Land [ ] Noise [ ] Water

- [ ] TAS Checked
- [ ] TAS Coded
- [X] Form 177
- [ ] Compliance Flow
- [ ] Malfunction
- [ ] Copy to Facility
- [ ] Frequency Change

RECEIVED
NOV 26 1984
EPA - DAPC - SPFLD

IL 532-1244
APC 421 7/84

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
Division of Air Pollution Control--Field Operations Section

MEMORANDUM

DATE: NOVEMBER 15, 1984

Date of Inspection: OCTOBER 25, 1984

TO: SY LEVINE, REG 1 MGR

I.D.#: 031 600 EPK

FROM: HARISH NARAYEN

Region: 1 District: 3

RECEIVED
NOV 26 1984
IEPA - DAPC - SPFLD

SUBJECT: Facility: LAKE SALVAGE CO.

Address: 2527 W. Lake St Chicago, IL. 60612

Contact/Title: Alex Sinkin / owner Phone:

An inspection of the above facility on October 25, 1984 pursuant to work plan requirements. Mr Alex Sinkin conducted a tour of the plant and provided the necessary information. The facility is a metal salvage and reclaiming plant. The faility operates one wire burning incinerator controlled by an afterburner. During the investigation the incinerator was operating burning plastic coated wires. The afterburner was observed operating and there were no visible emissions from the stack of the incinerator. The facility does not have a temperature monitor on the incinerator unit to determine operating temperature of the afterburner. Mr Alex Sinkin was advised on to look into the possibility of installation of a temperature monitor on the incinerator unit to measure operating temperature of the afterburner. Mr Sinkin agreed to look into the matter further

Presently the facility is in compliance with IEPA regulations and has the necessary permits.

IL 532-1245

ILLINOIS EPA
Environmental Protection Agency
2200 Churchill Road, Springfield, Illinois 62706

217/782-2113

OPERATING PERMIT

Permit Expiration Date: July 27, 1986

Application No.: 75020275
I.D. No.: 031600EPK
Applicant's Designation: 3218875462
Received: February 24, 1981
Operation of: Wire Reclaiming Furnace
Location: 2527 West Lake Street

March 16, 1981

Lake Salvage Company, Inc.
2527 West Lake Street
Chicago, Illinois 60612

Attention: Alex Sinkin

Gentlemen:

Permit is hereby granted to operate the above-referenced equipment subject to standard conditions attached hereto and incorporated herein by reference and the following special condition(s):

1. This incinerator has been granted a permit to burn insulation off scrap copper wire at a rate not to exceed 600 pounds per hour of material charged. The incinerator shall be heated to an operating temperature of 1400°F before charging. Wire insulated with polyvinyl chloride or asbestos shall not be charged to the incinerator nor shall any wire scrap containing the fuming metals tin, zinc, or lead be charged to this incinerator.

If you have any questions concerning this permit, please contact Hiram Patterson at 217/782-2113.

Very truly yours,

HMP

Bharat Mathur, P.E.
Manager, Permit Section
Division of Air Pollution Control

BM:HMP:cls/2880H,31

cc: Region 1 USA

L

STATE OF ILLINOIS
ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF AIR POLLUTION CONTROL
2200 CHURCHILL ROAD
SPRINGFIELD, ILLINOIS 62706

APPLICATION FOR RENEWAL OF AN OPERATING PERMIT

OPERATION OF: WIRE RECLAIMING FURNACE (A)
(SAME AS 9c ON PAGE 2)

FOR AGENCY USE ONLY
I. D. NO. 031 600 EPK
PERMIT NO. 76 09 0275
DATE 2-24-81

1a. NAME OF OWNER: LAKE SALVAGE CO, INC		2a. NAME OF OPERATOR: LAKE SALVAGE CO, INC	
1b. STREET ADDRESS OF OWNER: 2727 W LAKE STREET		2b. STREET ADDRESS OF OPERATOR: 2727 W LAKE STREET	
1c. CITY OF OWNER: CHICAGO		2c. CITY OF OPERATOR: CHICAGO	
1d. STATE OF OWNER: ILLINOIS	1e. ZIP CODE: 60612	2d. STATE OF OPERATOR: ILLINOIS	2e. ZIP CODE: 60612

3a. NAME OF CORPORATE DIVISION OR PLANT: LAKE SALVAGE CO, INC		3b. STREET ADDRESS OF EMISSION SOURCE: 2727 W LAKE STREET		
3c. CITY OF EMISSION SOURCE: CHICAGO	3d. LOCATED WITHIN CITY LIMITS: ☒ YES ☐ NO	3e. TOWNSHIP:	3f. COUNTY: COOK	3g. ZIP CODE: 60612

4. ALL CORRESPONDENCE TO: (NAME OF INDIVIDUAL) ALEX SIMKIN	5. TELEPHONE NUMBER FOR AGENCY TO CALL: 312-826-1542
6. ADDRESS FOR CORRESPONDENCE: ☒ OWNER ☐ OPERATOR ☐ EMISSION SOURCE	7. YOUR DESIGNATION FOR THIS APPLICATION: (B) SILVER7642

8. THE UNDERSIGNED HEREBY MAKES APPLICATION FOR A PERMIT AND CERTIFIES THAT THE STATEMENTS CONTAINED HEREIN ARE TRUE AND CORRECT, AND FURTHER CERTIFIES THAT ALL PREVIOUSLY SUBMITTED INFORMATION REFERENCED IN THIS APPLICATION REMAINS TRUE, CORRECT AND CURRENT. BY AFFIXING HIS SIGNATURE HERETO HE FURTHER CERTIFIES THAT HE IS AUTHORIZED TO EXECUTE THIS APPLICATION.

AUTHORIZED SIGNATURE(S): (C)

BY [signature] 1/23/81
SIGNATURE DATE

ALEX SIMKIN
TYPED OR PRINTED NAME OF SIGNER

PRESIDENT
TITLE OF SIGNER

BY _____ _____
SIGNATURE DATE

_____
TYPED OR PRINTED NAME OF SIGNER

_____
TITLE OF SIGNER

RECEIVED
FEB 24 1981

(A) THIS FORM IS TO PROVIDE THE AGENCY WITH GENERAL INFORMATION ABOUT THE EQUIPMENT TO BE OPERATED.

(B) PROVIDE A DESIGNATION IN ITEM 7 ABOVE WHICH YOU WOULD LIKE THE AGENCY TO USE FOR IDENTIFICATION OF YOUR EQUIPMENT. YOUR DESIGNATION WILL BE REFERENCED IN CORRESPONDENCE FROM THIS AGENCY RELATIVE TO THIS APPLICATION. YOUR DESIGNATION MUST NOT EXCEED TEN (10) CHARACTERS.

(C) THIS APPLICATION MUST BE SIGNED IN ACCORDANCE WITH PCB REGS., CHAPTER 2, PART 1, RULE 103(a)(4) OR 103(b)(5) WHICH STATES: "ALL APPLICATIONS AND SUPPLEMENTS THERETO SHALL BE SIGNED BY THE OWNER AND OPERATOR OF THE EMISSION SOURCE OR AIR POLLUTION CONTROL EQUIPMENT, OR THEIR AUTHORIZED AGENT, AND SHALL BE ACCOMPANIED BY EVIDENCE OF AUTHORITY TO SIGN THE APPLICATION."

IF THE OWNER OR OPERATOR IS A CORPORATION, SUCH CORPORATION MUST HAVE ON FILE WITH THE AGENCY A CERTIFIED COPY OF A RESOLUTION OF THE CORPORATION'S BOARD OF DIRECTORS AUTHORIZING THE PERSONS SIGNING THIS APPLICATION TO CAUSE OR ALLOW THE CONSTRUCTION OR OPERATION OF THE EQUIPMENT TO BE COVERED BY THE PERMIT.

FOR AGENCY USE ONLY

DATA AND INFORMATION INCORPORATED BY REFERENCE FROM CURRENT OPERATING PERMIT

9a. APPLICATION NO.: 1 0 0 2 0 2 1 I

9b. I.D. NO.: 0 3 1 6 0 0 E P K

9c. OPERATION OF: WIRE RECLAMATION FURNACE

9d. LOCATION: LAKE SALVAGE CO INC 2127 W. LAKE ST. CHICAGO ILL

9e. PERMIT EXPIRATION DATE: JULY 2 8 1981

9f. HAS THE OPERATION AS DESCRIBED IN THE REFERENCED OPERATING PERMIT BEEN MODIFIED* AS DEFINED IN RULE 101 OF THE PCB REGS., CHAPTER 2, PART 1? ☐ YES ☑ NO

9g. IF "YES" SUBMIT THE APPLICABLE FORMS OR DESCRIBE IN DETAIL THE MODIFICATION OF THE OPERATION.

9h. DATE THE OPERATION WAS MODIFIED: ___ ___ ___ ___ ___ ___

10a. IF THE OPERATION IS SUBJECT TO A RULE WHOSE EFFECTIVE DATE IS ON OR BEFORE THE DATE OF THIS APPLICATION, IS SUCH OPERATION IN FULL COMPLIANCE WITH ALL SUCH RULES? ☐ YES ☐ NO

10b. IF "NO", EXPLAIN:

11. IF YOUR OPERATING PERMIT APPLICATION CONTAINS COMPLIANCE PROGRAM(S), HAS THIS COMPLIANCE PROGRAM BEEN COMPLETED AND HAVE ALL THE PROJECT COMPLETION REPORTS (APC-271) BEEN SUBMITTED? ☐ YES ☐ NO

12a. ARE YOU IN COMPLIANCE WITH ALL CONDITIONS OF ALL REFERENCED PERMITS? ☑ YES ☐ NO

12b. IF "NO", EXPLAIN:

*MODIFICATION: ANY PHYSICAL CHANGE IN, OR CHANGE IN THE METHOD OF OPERATION, OF AN EMISSION SOURCE OR OF AIR POLLUTION CONTROL EQUIPMENT WHICH INCREASES THE AMOUNT OF ANY SPECIFIED AIR CONTAMINANT EMITTED BY SUCH SOURCE OR EQUIPMENT OR WHICH RESULTS IN THE EMISSION OF ANY *SPECIFIED AIR CONTAMINANT NOT PREVIOUSLY EMITTED. IT SHALL BE PRESUMED THAT AN INCREASE IN THE USE OF RAW MATERIALS, THE TIME OF OPERATION*, OR THE RATE OF PRODUCTION WILL CHANGE THE AMOUNT OF ANY SPECIFIED AIR CONTAMINANT EMITTED. NOTWITHSTANDING ANY OTHER PROVISIONS OF THIS DEFINITION, FOR PURPOSES OF PERMITS ISSUED PURSUANT TO RULE 103, THE AGENCY MAY SPECIFY CONDITIONS UNDER WHICH AN EMISSION SOURCE OR AIR POLLUTION CONTROL EQUIPMENT MAY BE OPERATED WITHOUT CAUSING A MODIFICATION AS HEREIN DEFINED, AND NORMAL CYCLICAL VARIATIONS, BEFORE THE DATE OPERATING PERMITS ARE REQUIRED, SHALL NOT BE CONSIDERED MODIFICATIONS. PCB REGS., CHAPTER 2, PART 1, RULE 101.

NOTE: TO INCORPORATE OTHER CONSTRUCTION PERMITS BY REFERENCE, ATTACH A LISTING OF SUCH PERMITS USING THE FORMAT SET FORTH IN ITEM 9 OR APC-210, "DATA AND INFORMATION -- INCORPORATION BY REFERENCE."

Illinois Environmental Protection Agency · 2200 Churchill Road, Springfield, IL 62706

217/782-2113

OPERATING PERMIT

PERMITTEE

Lake Salvage Co., Inc.
Attn: Alex Simkin
2527 W. Lake Street
Chicago, Illinois 60612

Application No.: 77022275 I.D. No.: 031601BPK
Applicant's Designation: 3218876452 Date Received: March 25, 1980
Subject: WIRE RECLAIMING FURNACE
Date Issued: April 25, 1980 Expiration Date: April 21, 1987
Location: 2527 W. Lake Street, Chicago, Illinois

Permit is hereby granted to the above-designated Permittee to OPERATE emission source(s) and/or air pollution control equipment consisting of one wire reclaiming furnace with afterburner and wet scrubber as described in the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

1a. The wire reclaiming furnace feed rate shall not exceed 600 pounds/hour pounds. Wire insulated with polyvinyl chloride or asbestos and any wire or scrap containing the fuming metals tin, zinc or lead shall not be charged to this furnace.

b. The afterburner combustion chamber shall be preheated to an operating temperature of 1400°F before charging, and this temperature shall be maintained during operation.

c. The wire reclaiming furnace afterburner shall be equipped with a continuous temperature indicator with strip chart recorder. Records of equipment operation and strip charts shall be retained for two years and such records shall be available for inspection by the Agency.

2a. Within 180 days of the receipt of this operating permit, the particulate matter concentrations in the effluent stream of the furnace shall be measured by an approved testing service. These tests shall be conducted, documented, and reported in accordance with 35 Ill. Adm. Code Parts 200 and 283.

M

b. Prior to carrying out these tests, the Pre-Test Procedures of 35 Ill. Adm. Code 283, Subpart B, shall be completed. In particular, the Agency's regional office and the Agency's Source Emission Test Specialist shall be notified a minimum of thirty (30) days prior to the expected date of these tests and further notified a minimum of five (5) working days prior to the test of the exact date, time and place of these tests, to enable the Agency to witness these tests.

Illinois Environmental Protection Agency
Division of Air Pollution Control - Regional Office
The Intercontinental Center
1701 First Avenue
Maywood, Illinois 60153

Illinois Environmental Protection Agency
Attn: Source Emission Test Specialist
Division of Air Pollution Control
Intercontinental Center
1701 First Avenue
Maywood, Illinois 60153

c. Three (3) copies of the Final Report(s) for these tests, in accordance with 35 Ill. Adm. Code 283, Subparts E, F and G, shall be submitted to the Agency within 14 days after the test results are compiled and finalized prior to or accompanying the operating permit renewal application.

d. A copy of the Summary of Results, General Information, and Conclusions, as contained in the Final Report, shall also be submitted to the Source Emission Test Specialist.

Bharat Mathur, P.E.
Manager, Permit Section
Division of Air Pollution Control

BM:UAP:mi/0032F/1-2 *MM*

cc: Region 1 *WBr*

Illinois Environmental Protection Agency • 2200 Churchill Road, Springfield, IL 62706

APPLICATION FOR OPERATING PERMIT RENEWAL 217/782-2113

APRIL 3, 1985

LAKE SALVAGE CO INC
ATTENTION: ALEX SMITH
2527 W LAKE ST
CHICAGO IL 60612

APPLICATION ID: 76820275
ID NUMBER: 31600EPA
OPERATION OF: WIRE RECLAIMING FURNACE
LOCATION: LAKE SALVAGE CO INC
2527 W LAKE ST CHICAGO IL 60612

THE ABOVE REFERENCED OPERATING PERMIT WILL EXPIRE ON JULY 27, 1985. THE AGENCY RECOMMENDS THAT YOU APPLY FOR A RENEWAL OF THIS OPERATING PERMIT AT LEAST NINETY (90) DAYS PRIOR TO ITS EXPIRATION.

IF YOUR OPERATION IS UNCHANGED, YOU MAY RENEW YOUR PERMIT BY SIGNING IN THE SPACE PROVIDED, KEEPING ONE COPY FOR YOUR RECORDS, AND RETURNING THIS CORRESPONDENCE TO THE AGENCY. WHEN DATED AND SIGNED BY THE AGENCY THIS APPLICATION WILL BE YOUR PERMIT AND WILL BE RETURNED TO YOU.

THE AGENCY'S RECORDS INDICATE THAT THIS APPLICATION INCLUDES THE FOLLOWING EMISSION SOURCES AND CORRESPONDING CONTROL EQUIPMENT (IF ANY):

EMISSION POINT	EMISSION SOURCE	CONTROL EQUIPMENT
001	01	WIRE RECLAMATION INCINERATOR
001	01	GAS FIRED AFTERBURNER AND WET SCRUBBER

IF YOUR OPERATION:
1) HAS BEEN MODIFIED; OR
2) HAS CHANGED AND THE DESCRIPTION FILED WITH THE AGENCY; OR
3) INCLUDES EMISSION SOURCES OR CONTROL EQUIPMENT DIFFERENT FROM THAT WHICH IS GIVEN ABOVE;
THEN TO RENEW YOUR OPERATING PERMIT YOU MUST COMPLETE THE APPROPRIATE FORMS (SEE ENCLOSED "REQUEST FOR PERMIT FORMS" APC205) AND APPLY FOR A RENEWAL WITH AN APC 200 FORM.

IF THE OPERATION HAS BEEN PERMANENTLY DISCONTINUED OR PREVIOUSLY INCORPORATED INTO ANOTHER PERMIT, PLEASE ATTACH A LETTER TO THE AGENCY WITHDRAWING THIS PERMIT.

PAGE 2

ID NUMBER: 031600EPK
APPLICATION NO.: 76020273

I CERTIFY THAT THE ORIGINAL APPLICATION INFORMATION REMAINS TRUE, CORRECT, AND CURRENT AND THAT I AM AUTHORIZED TO EXECUTE THIS APPLICATION FOR PERMIT RENEWAL.

X Alex Simkin — 3-21-86
SIGNATURE — DATE

ALEX SIMKIN PRESIDENT
PRINTED NAME AND TITLE OF SIGNER

----------FOR AGENCY USE ONLY----------

PERMIT EXPIRATION DATE:

PERMIT IS GRANTED TO OPERATE THE ABOVE REFERENCED EQUIPMENT SUBJECT TO STANDARD CONDITIONS ATTACHED HERETO AND ANY SPECIAL CONDITIONS OF THE PREVIOUSLY GRANTED OPERATING PERMIT.

[illegible], P.E.
MANAGER, PERMIT SECTION
DIVISION OF AIR POLLUTION CONTROL

CC: REGION 1[illegible]

CS1=MNX15.43/VMS= .1549X15.43/ 75.80= .0315
CS2 =0.0014XCS1=0.00014X .0315= .0000045

CS =(CS2XVMS)/V=(.0000045X 75.80)/ 79.60= .0000043

LBS/HR =CSXSCFMX60= .0000043X 7830X60= 2.02

****

MN=WEIGHT OF PARTICULATES WITHOUT CONDENCIBLES= .1473

PARTICULATE CONCENTRATION EMISSIONS

CS1=MNX15.43/VMS= .1473X15.43/ 75.80= .0300
CS2 =0.0014XCS1=0.00014X .0300= .0000043

CS =(CS2XVMS)/V=(.0000043X 75.80)/ 79.60= .0000041

LBS/HR =CSXSCFMX60= .0000041X 7830X60= 1.92

****

POINT VELOCITIES IN FPS			
.59	35.90	.59	35.90
.61	36.91	.61	36.91
.67	40.71	.67	40.71
.67	40.71	.63	38.38
.67	40.71	.67	40.71
.67	40.71	.67	40.71

EXCESS AIR CALCULATIONS

TEST NO. 3

$$\text{EXCESS AIR RATIO, } R = \frac{O_2}{0.266N_2 - O_2}$$

$$= \frac{0.16}{0.266\ (0.795) - 0.16}$$

$$= 3.11$$

$$\text{PERCENT EXCESS AIR} = 3.11 \times 100$$

$$= 311$$

$$\text{PPM CO AT 50 \% EXCESS AIR} = \text{Ppm CO} \times \frac{1 + R}{1.5}$$

$$= 60 \times \frac{1 + 3.11}{1.5}$$

$$= 164$$

PARTICULATE CONCENTRATION

TEST NO. 3

$$\text{Grains/Scf corrected to 12 \% } CO_2 = \text{Grains/Scf} \times \frac{12}{CO_2 \text{ (Waste)}}$$

A. SOLIDS ONLY

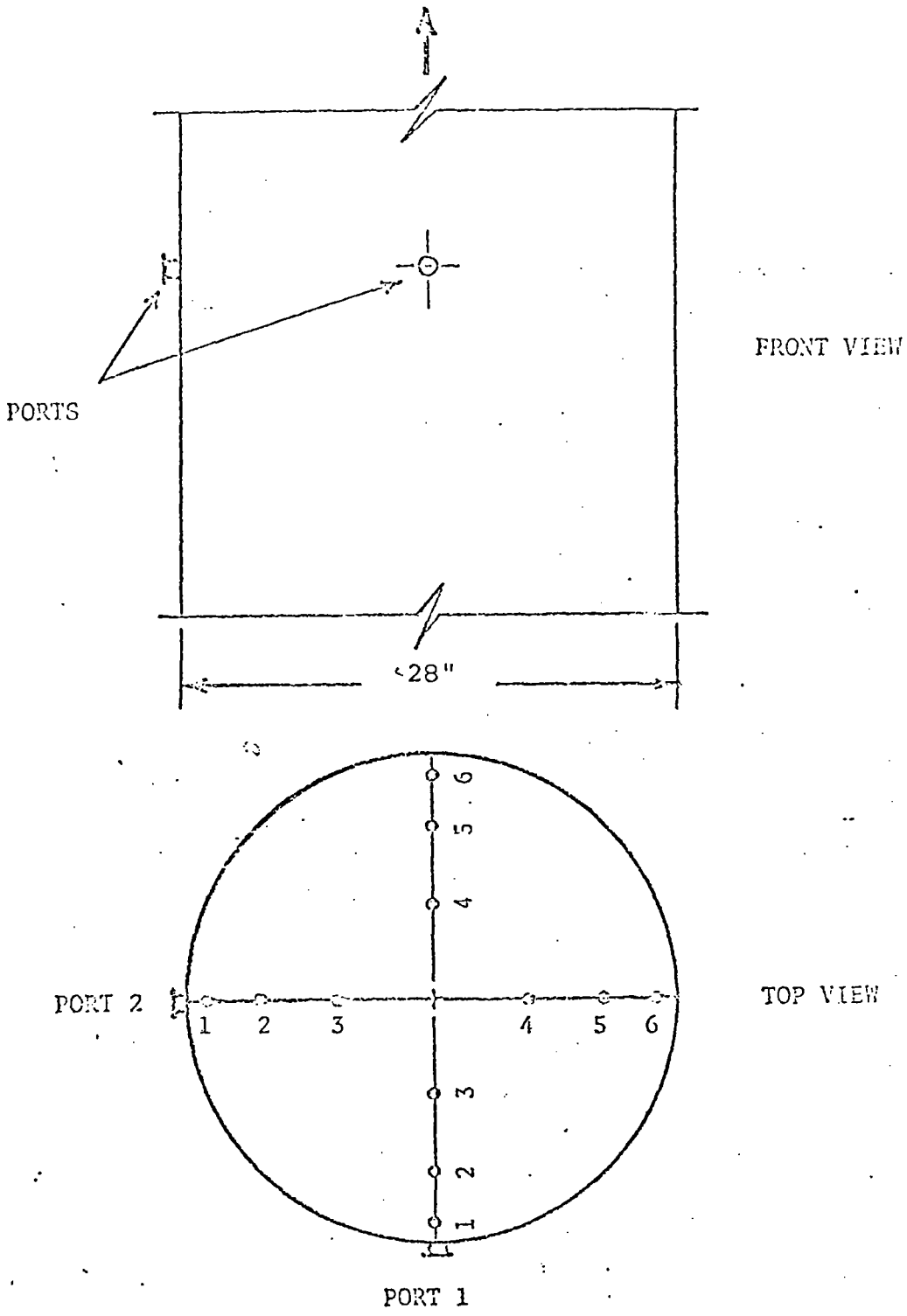
$$\text{Grains/Scf} = 0.0300 \times \frac{12}{4.8 - 0.5}$$

$$= 0.0837$$

B. TOTAL (SOLIDS + CONDENSIBLES)

$$\text{Grains/Scf} = 0.0315 \times \frac{12}{4.8 - 0.5}$$

$$= 0.0879$$



Measurements from tip of pilot tube for Traverse point:

1 - 1.2"	4 - 19.74"
2 - 4.10"	5 - 23.88"
3 - 8.26"	6 - 26.78"

SAMPLING SECTION DIAGRAM

EPA TEST FORM

PARTICULATE MATTER DATA SHEET

TRAVERSE POINT	TIME	STACK GAS TEMPERATURE (°F)	VELOCITY HEAD (IN H_2O)	ORIFICE PRESSURE DROP (IN H_2O)	GAS METER VOLUME (FT^3)	GAS METER TEMPERATURE (°F) INLET	GAS METER TEMPERATURE (°F) OUTLET	TEMPERATURE OF GAS LEAVING LAST IMPINGER (°F)	PUMP INTAKE VACUUM (IN Hg)
A	11:15								
1	:25	220	0.30	1.0	138.0	40	45	40	3
2	:35		0.36	1.2		50	45		
3	:45	220	0.37	1.2		50	45	50	3
4	:55		0.45	1.5		60	55		
5	12:05	220	0.45	1.5		65	50	50	3
6	:15		0.43	1.4	174.6	70	60		
					36.6				
B									
1			0.52	1.7	64.3	66	55	50	3
2			0.45	1.5		50	50		
3			0.47	1.6		55	50	50	3
4			0.42	1.3		60	57		
5			0.45	1.5		65	55	60	3
6			0.45	1.5	100.9	70	56		
					36.6				
Total	120 Min				73.2				
Average		220	0.4163	1.37		53.71		50	3

Plant	LAKE SHORE
Location	CHICAGO, IL
Test	1
Date	12-2-75
Ambient Temperature, °F	40
Barometric Pressure, In Hg	29.72
Moisture Content, %	-
Nozzle Diameter, In	1/4
Probe Length, Ft	3

Probe Temperature, °F	250
Filter Holder Temperature, °F	250
C Factor	-
Operator	R.S.
Static Pressure, in. Hg	-0.02

Filter		
Cyclone		
Flask		
Water Collected		

EPA TEST FORM

PARTICULATE MATTER DATA SHEET

TRAVERSE POINT	TIME	STACK GAS TEMPERATURE (°F)	VELOCITY HEAD (IN H_2O)	ORIFICE PRESSURE DROP (IN H_2O)	GAS METER VOLUME (FT^3)	GAS METER TEMPERATURE (°F)		TEMPERATURE OF GAS LEAVING LAST IMPINGER (°F)	PUMP INTAKE VACUUM (IN Hg)
						INLET	OUTLET		
A	1:45								
1	5	230	0.35	1.2	212.0	60	55	60	3
2	2:05		0.37	1.3		65	55		
3	15		0.37	1.5		65	56	60	3
4	25	220	0.41	1.5		65	55		
5	35		0.38	1.5		65	55	60	3
6	2:45	220	0.35	1.5	249.5	65	55		
					37.5				
B									
1			0.35	1.2	139.0	65	55	60	3
2			0.37	1.2		65	55		
3			0.35	1.5		65	56	60	3
4			0.36	1.5		65	55		
5			0.41	1.5		65	55	60	3
6			0.35	1.5	175.5	65	55		
					36.5				
Total	120 Min				74.0				
Average		220	0.4155	1.4		60.04		60	3

Plant	LAKE FAUNCE
Location	CARROLLTON, IL
Test	3
Date	12-2-75
Ambient Temperature, °F	40
Barometric Pressure, In Hg	29.95
Moisture Content, %	-
Nozzle Diameter, In	1/4
Probe Length, Ft	3

Probe Temperature, °F	250
Filter Holder Temperature, °F	250
C Factor	-
Operator	RS.
Static Pressure, in. Hg	-0.02

Filter		
Cyclone		
Flask		
Water Collected		

EPA TEST FORM

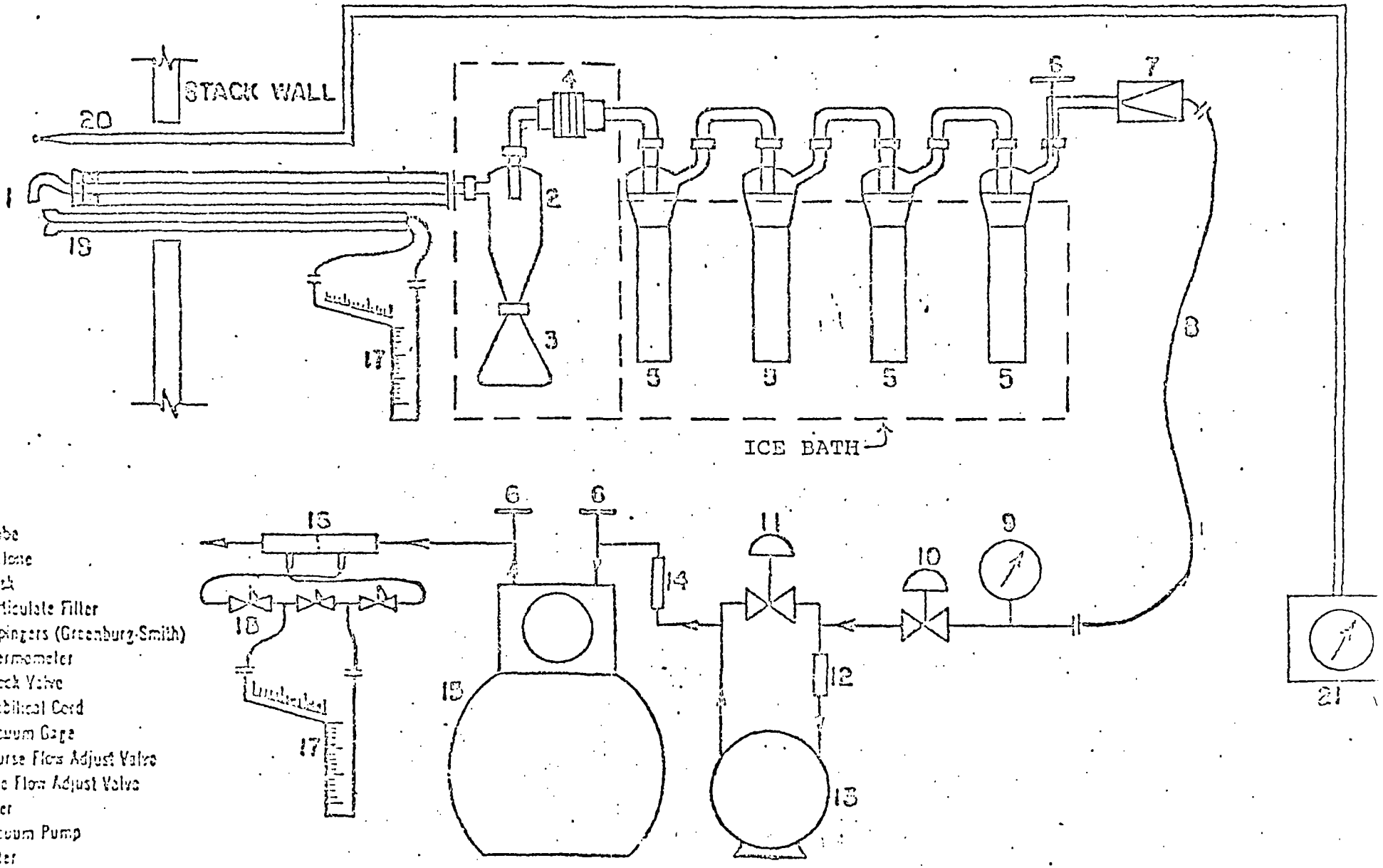
PARTICULATE MATTER DATA SHEET

TRAVERSE POINT	TIME	STACK GAS TEMPERATURE (°F)	VELOCITY HEAD (IN H_2O)	ORIFICE PRESSURE DROP (IN H_2O)	GAS METER VOLUME (FT^3)	GAS METER TEMPERATURE (°F)		TEMPERATURE OF GAS LEAVING LAST IMPINGER (°F)	PUMP INTAKE VACUUM (IN Hg)
						INLET	OUTLET		
A	12:35								
1	45	220	0.35	1.2	175.0	60	55	50	3
2	55		0.35	1.2		60	57		
3	1:05	220	0.40	1.3		60	57		
4	15		0.45	1.5		65	55	50	3
5	25		0.45	1.5		65	55		
6	1:35	220	0.42	1.3	211.65	65	55	50	3
					36.65				
B									
1			0.35	1.2	102.0	60	55	50	3
2			0.38	1.3		60	57		
3			0.45	1.5		60	57	50	3
4			0.42	1.3		65	55		
5			0.40	1.3	138.65	65	55	50	3
6			0.42	1.5		65	55		
					36.65				
Total	120 min								
Average		220	0.4053	1.3		58.25		50	3

Plant	LAKE SHORE
Location	CHICAGO, IL
Test	2
Date	12-2-75
Ambient Temperature, °F	40
Barometric Pressure, In Hg	29.92
Moisture Content, %	-
Nozzle Diameter, In	3/8
Probe Length, Ft	3

Probe Temperature, °F	250
Filter Holder Temperature, °F	250
C Factor	-
Operator	R.S
Static Pressure, in. Hg	- 0.02

Filter		
Cyclone		
Flask		
Water Collected		



1) Probe
2) Cyclone
3) Flask
4) Particulate Filter
5) Impingers (Greenburg-Smith)
6) Thermometer
7) Check Valve
8) Umbilical Cord
9) Vacuum Gage
10) Course Flow Adjust Valve
11) Fine Flow Adjust Valve
12) Oiler
13) Vacuum Pump
14) Filter
15) Dry Gas Meter
16) Orifice Tube
17) Incline Manometer
18) Solenoid Valves
19) Pitot
20) Thermocouple

SAMPLING TRAIN

(EPA)

217/782-2113 March 22, 1976

CERTIFIED MAIL

153513

LAKE SALVAGE CO., INC.
2527 West Lake Street
Chicago, Illinois 60612

Attention: Mr. Alex Simkin

Reference

Application No.	- 0 6 02 0275
I. D. No.	- 031 600 BPK 321 887 645
Received	- February 23, 1976
Operation of	- Wire Re-Claiming Furnace
Location	- 2527 W. Lake St. Chicago, Illinois
County	- Cook

Gentlemen:

Pursuant to the requirements of the Environmental Protection Act (Act) and the Regulations thereunder the Agency has reviewed the above-referenced permit application and as final action pursuant to Section 39 of the Act hereby denies the permit. The reasons the permit application is denied are below.

The provisions of the PCB Regs., Chapter 2, Rule 203(e)(4) may be violated if the permit were granted.

As required by Section 39 of the Act the following is a statement of specific reasons why the Act and the Regulations cited above might not be met.

> The wire reclaiming furnace, is allowed, under Rule 203(e)(4) to emit up tp 0.10 grains/SCF adjusted to 12% CO_2 waste only basis. Your applicatmon indicates that 0.1067 grains/SCF adjusted to 12% CO_2 waste only basis are being emitted. This emission rate is in excess of that allowed by Rule 203(e)(4).

If we can be of any assistance regarding this or other permit related matters, please contact us.

Very truly yours,

Keith J. Conklin, P.E.
Manager, Permit Section
Division of Air Pollution Control

AMT:dlw

cc: AEC 3-23-76 Rep

D

STATE OF ILLINOIS
ENVIRONMENTAL PROTECTION AGENCY

031 600 EPK

INTER-OFFICE CORRESPONDENCE

DATE: April 28, 1976

MEMO TO: Keith J. Conklin

FROM: Tony Telford T.T.

SUBJECT: Current Wire Incinerator Permit Requests for Operating Permits

I have in my possession an operating permit for Lake Salvage Company, I. D. No. 031 600 EPK, operating permit no. O 6 02 0275. This wire incinerator will not meet Rule 203(e)(4), nor will it meet Rule 203(a) on the basis of combustibles only as the process weight rate. My question is, how do I deny this permit? In addition, I have on my desk, a permit for Abco Metals Company which has I. D. No. 031 600 EJD, and operating permit no. O 5 10 0034. The Abco Metals Company wire incinerator has stack tests provided by the manufacturer, Peco Company of Connecticut, which shows that the incinerator meets Rule 203(e)(4) but not Rule 203(a), on the basis of combustibles only as the process weight. My question is, how do I deny this permit?

AMT:br

EVERY INTER-OFFICE LETTER SHOULD HAVE ONLY ONE SUBJECT.
ALL LETTERS TO BE SIGNED . . . NO SALUTATION OR COMPLIMENTARY CLOSING NECESSARY.

EPA-90-7/71

E

[illegible] Company, Inc

217/782-2113 May 14, 1976

CERTIFIED MAIL
153762
LAKE SALVAGE CO., INC.
2527 West Lake Street
Chicago, Illinois 60612

Attention: Mr. Alex Simkin
President

Reference
Application No. - O 6 02 0275
I. D. No. - 031 600 EPK 321 887 645
Received - April 5, 1976
Operation of - Wire Reclaiming Furnace
Location - 2527 West Lake Street
Chicago, Illinois
County - Cook

Gentlemen:

Pursuant to the requirements of the Environmental Protection Act (Act) and the Regulations thereunder the Agency has reviewed the above-referenced permit application and as final action pursuant to Section 39 of the Act hereby denies the permit. The reasons the permit application is denied are below.

The provisions of the PCB Regs., Chapter 2, Rule 203(e)(4) may be violated if the permit were granted.

As required by Section 39 of the Act the following is a statement of specific reasons why the Act and the Regulations cited above might not be met.

> The wire reclaiming furnace, is allowed, under Rule 203(e)(4) to emit up to 0.10 grains/SCF adjusted to 12% CO_2 waste only basis. Your application indicates that 0.1067 grains/SCF adjusted to 12% CO_2 waste only basis are being emitted. This emission rate is in excess of that allowed by Rule 203(e)(4).

If we can be of any assistance regarding this or other permit related matters, please contact us.

Very truly yours,

Keith J. Conklin, P.E.
Manager, Permit Section
Division of Air Pollution Control

AMT:hr

F

Lake Salvage Company, Inc.

DEALERS OF SCRAP IRON & METALS

2527-29 WEST LAKE STREET
CHICAGO, ILLINOIS 60612

TA 9-8882

March 31, 1976

Mr. Keith J. Conklin
Illinois Environmental Protection Agency
2200 Churchill Road
Springfield, Illinois

Reference
Application No. -0 602 0275
I.D. No. -031 600 EFK 321 987 645

Dear Mr. Conklin:

With respect to my conversation with Mr. Tony Talford, I am requesting that you reopen our permit application for our wire reclaiming furnace. This most recent drawing of the furnace enclosed locates the additional burner in the stack which was requested of us by the Chicago Environmental Protection Agency prior to their issuing us an operating permit. This burner was installed after the testing of the furnace by Commercial Testing Company and their report would not reflect the effect it has on emissions, which I am sure are now below the mininum acceptable levels.

Sincerely yours,

Edward Simkin

Edward Simkin
Lake Salvage Company

COMMERCIAL TESTING & ENGINEERING CO.
GENERAL OFFICES: 228 NORTH LA SALLE STREET, CHICAGO, ILLINOIS 60601 · AREA CODE 312 726-8434

SINCE 1908

May 27, 1976

Eng'r Tony Talford
Permit Section
Illinois Evironmental Protection Agency
Air Pollution Control Dept.
2200 Churchill Rd.,
Springfield, Illinois 62704

RE: Lake Salvage Application for Permit (Incinerator)

Dear Mr. Talford:

I understand that you handled the permit application of the Lake Salvage Incinerator. It was rejected due to the fact that one test was over by 0.0066 grain/scf at 12% CO_2 for the solids and by 0.0099 grain/ scf at 12% CO_2 for total (Including condensibles) while the two other tests were in compliance to Rule 203e-4 of the Illinois EPA Rules and Regulations. (Results attached).

You told me during our telephone conversation to seek the advise of Mr. Fred Smith, which I did. Mr. Smith told me to write you a letter of re-consideration in as much as the averaging method for evaluating the incinerator tests is under consideration.

We look forward for your kind help and consideration on this matter.

Thank you so much and hoping to hear from you soon.

Very truly yours;

COMMERCIAL TESTING & ENGINEERING CO.
Environmental Testing Division

BERT SILLORIQUEZ
Environmental Chemist

cc: Lake Salvage
Mr. Fred Smith

AMERICAN COUNCIL OF INDEPENDENT LABORATORIES, INC.

G

COMMERCIAL TESTING & ENGINEERING CO.
GENERAL OFFICES: 228 NORTH LA SALLE STREET, CHICAGO, ILLINOIS 60601 · AREA CODE 312 726-8434

DATA SUMMARY

TEST	REFUSE CHARGED LB/HR	EMISSION CONCENTRATION*								TOTAL EMISSION LB/HR	GAS EMISSION	EXCESS AIR	SMOKE OBSERVATION
		GRAINS/SCF		GRAINS/SCF AT 12% CO_2**		LB PARTICULATE PER 100 LB REFUSE CHARGED		LB PARTICULATE PER 1000 LB GAS			PPM CO AT 50% EXCESS AIR	%	
		SOLIDS	TOTAL	SOLIDS	TOTAL	SOLIDS	TOTAL	SOLIDS	TOTAL				
1	600	0.0292	0.0305	0.0876	0.0915	0.3117	0.3267	0.0531	0.0557	1.96	156	367	No Visible emissions
2	600	0.0382	0.0394	0.1066	0.1099	0.4033	0.4150	0.0697	0.0717	2.49	146	338	"
3	600	0.0300	0.0315	0.0837	0.0879	0.3200	0.3367	0.0545	0.0573	2.02	164	311	"
AVE.	600	0.0325	0.0338	0.0926	0.0964	0.3450	0.3595	0.0591	0.0616	2.16	155	338.7	"

*Solids are particulates collected in the probe, cyclone, and on the filter. Total particulates include condensibles and residue from impinger bottles.

**Correction to 12% CO_2 resulting from combustion of waste only.

Lake Salvage Company, Inc.
2527-29 West Lake Street
Chicago, Illinois
60612
July 21, 1976

Mr. Keith J. Conklin, P.E.
Illinois Environmental Protection Agency
22 Churchill Road
Springfield, Illinois
62706

Dear Mr. Conklin,

I am requesting that our incinerator permit application (No. 0602 0275, ID# 321887645, 031600EPK) be reopened in light of the new decision to average the particulate emission tests. Under an averaging system, our emission results would be under the 0.10 grams/SCF adjusted to 12% CO_2 waste only. Two of our three tests were well under the excess allowed while only one test surpassed the excess by 0.0066 grams/SCF at 12% CO_2 waste only.

Another factor that would have some bearing on the matter is that one of the secondary burners was not operating (due to malfunction) during the test. This can be confirmed by Burt Silloriquez, 312-493-9100.from the Commercial Testing and Engineering Company. This burner has since been replaced and is in operation.

Also, an additional burner was added in the stack at the request of the Chicago Environmental Protection Agency. After this burner was added, the city examiners re-inspected the unit in operation and issued the operating permit.

Because of the above mentioned factors and the high expense of repeating the emission tests, I ask you to please reconsider our permit application.

Sincerely yours,

Edward E. Simkin

Edward E. Simkin

The type of material used in the second charge (which exceeded the minimum emission standards) is completely of the type which would not be used in our operation, being used only for testing purposes. This wire is of such a high waste percentage and such a low metallic recovery (80% loss), it would not be economically feasible to charge in the unit

EES/ms

(OVER)

Edward E. Simkin
H

STATE OF ILLINOIS
ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF AIR POLLUTION CONTROL
2200 CHURCHILL ROAD
SPRINGFIELD, ILLINOIS 62706

APPLICATION FOR A PERMIT (A)
☐ CONSTRUCT ☒ OPERATE

NAME OF EQUIPMENT TO BE CONSTRUCTED OR OPERATED: WIRE RE-CLAIMING FURNACE (B)

FOR AGENCY USE ONLY
I. D. NO. 031600EPK
PERMIT NO. 7602075
DATE 07-23-76

1a. NAME OF OWNER:		2a. NAME OF OPERATOR:	
LAKE SALVAGE CO., INC.		SAME	
1b. STREET ADDRESS OF OWNER:		2b. STREET ADDRESS OF OPERATOR:	
2527 W. LAKE ST.		"	
1c. CITY OF OWNER:		2c. CITY OF OPERATOR:	
CHICAGO		"	
1d. STATE OF OWNER:	1e. ZIP CODE:	2d. STATE OF OPERATOR:	2e. ZIP CODE:
ILL	60612	"	

3a. NAME OF CORPORATE DIVISION OR PLANT:		3b. STREET ADDRESS OF EMISSION SOURCE:		
SAME AS ABOVE		2527 W. LAKE ST.		
3c. CITY OF EMISSION SOURCE:	3d. LOCATED WITHIN CITY LIMITS: ☒ YES ☐ NO	3e. TOWNSHIP:	3f. COUNTY:	3g. ZIP CODE:
CHICAGO			COOK	60612

4. ALL CORRESPONDENCE TO: (NAME OF INDIVIDUAL)	5. TELEPHONE NUMBER FOR AGENCY TO CALL:
ALEX SIMKIN	312-TA9-8882
6. ADDRESS FOR CORRESPONDENCE: (CHECK ONLY ONE) ☒ OWNER: ☐ OPERATOR ☐ EMISSION SOURCE	7. YOUR ID NUMBER FOR THIS APPLICATION: (C) 321 S17 641

8. THE UNDERSIGNED HEREBY MAKES APPLICATION FOR A PERMIT AND CERTIFIES THAT THE STATEMENTS CONTAINED HEREIN ARE TRUE AND CORRECT, AND FURTHER CERTIFIES THAT ALL PREVIOUSLY SUBMITTED INFORMATION REFERENCED IN THIS APPLICATION REMAINS TRUE, CORRECT AND CURRENT. BY AFFIXING HIS SIGNATURE HERETO HE FURTHER CERTIFIES THAT HE IS AUTHORIZED TO EXECUTE THIS APPLICATION.

AUTHORIZED SIGNATURE(S): (D)

BY [signature] SIGNATURE — 2/20/76 DATE

ALEX SIMKIN
TYPED OR PRINTED NAME OF SIGNER

PRESIDENT
TITLE OF SIGNER

BY _____ SIGNATURE — _____ DATE

_____
TYPED OR PRINTED NAME OF SIGNER

_____
TITLE OF SIGNER

(A) THIS FORM IS TO PROVIDE THE AGENCY WITH GENERAL INFORMATION ABOUT THE EQUIPMENT TO BE CONSTRUCTED OR OPERATED. THIS FORM MAY ONLY BE USED TO REQUEST ONE TYPE OF PERMIT - CONSTRUCTION OR OPERATION - AND NOT BOTH.

(B) CLEARLY IDENTIFY THE GENERIC NAME OF THE EQUIPMENT TO BE CONSTRUCTED OR OPERATED. SUCH IDENTIFICATION WILL APPEAR ON THE PERMIT WHICH MAY BE ISSUED PURSUANT TO THIS APPLICATION. THIS FORM MUST BE ACCOMPANIED BY THE APPLICABLE ADDENDA.

(C) PROVIDE A NUMBER IN ITEM 7 ABOVE WHICH YOU WOULD LIKE THE AGENCY TO USE FOR IDENTIFICATION OF YOUR EQUIPMENT. YOUR IDENTIFICATION NUMBER WILL BE REFERENCED IN ALL CORRESPONDENCE, RELATIVE TO THIS APPLICATION, FROM THIS AGENCY. YOUR IDENTIFICATION NUMBER MUST NOT EXCEED TEN (10) CHARACTERS.

RECEIVED
FEB 23 1976
ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF AIR POLLUTION CONTROL
STATE OF ILLINOIS

(D) THIS APPLICATION MUST BE SIGNED IN ACCORDANCE WITH PCB REGS., CHAPTER 2, PART 1, RULE 103(a)(4) OR 103(b)(5) WHICH STATES: "ALL APPLICATIONS AND SUPPLEMENTS THERETO SHALL BE SIGNED BY THE OWNER AND OPERATOR OF THE EMISSION SOURCE OR AIR POLLUTION CONTROL EQUIPMENT, OR THEIR AUTHORIZED AGENT, AND SHALL BE ACCOMPANIED BY EVIDENCE OF AUTHORITY TO SIGN THE APPLICATION.

IF THE OWNER OR OPERATOR IS A CORPORATION, SUCH CORPORATION MUST HAVE ON FILE WITH THE AGENCY A CERTIFIED COPY OF A RESOLUTION OF THE CORPORATION'S BOARD OF DIRECTORS AUTHORIZING THE PERSONS SIGNING THIS APPLICATION TO CAUSE OR ALLOW THE CONSTRUCTION OR OPERATION OF THE EQUIPMENT TO BE COVERED BY THE PERMIT.

I

9. AN OPERATING PERMIT APPLICATION MUST BE SUBMITTED IN DUPLICATE.
A CONSTRUCTION PERMIT APPLICATION FOR CONSTRUCTION IN COOK COUNTY OUTSIDE OF THE CORPORATE LIMITS OF CHICAGO MUST BE SUBMITTED IN QUADRUPLICATE.
A CONSTRUCTION PERMIT APPLICATION IN ALL OTHER LOCATIONS MUST BE SUBMITTED IN TRIPLICATE.

10. THE APPLICANT SHALL SUBMIT A PLOT PLAN AND MAP SHOWING DISTANCES TO THE NEAREST BOUNDARY OF THE PROPERTY ON WHICH THE OPERATION IS LOCATED AND DISTANCES TO THE NEAREST RESIDENCES, LODGINGS, NURSING HOMES, HOSPITALS, SCHOOLS AND COMMERCIAL AND MANUFACTURING ESTABLISHMENTS. IF SUCH A PLOT PLAN AND MAP HAS ALREADY BEEN SUBMITTED, INDICATE THE ASSOCIATED AGENCY I.D. NUMBER AND PERMIT APPLICATION NUMBER. AGENCY I.D. NO. _____ APPLICATION NO. _____

11. THE APPLICANT SHALL SUBMIT A PROCESS FLOW DIAGRAM DEPICTING ALL EMISSION SOURCES AND ALL AIR POLLUTION CONTROL EQUIPMENT COVERED BY THIS PERMIT APPLICATION. THE DIAGRAM SHALL INCLUDE LABELS FOR EACH EMISSION SOURCE AND EACH ITEM OF AIR POLLUTION CONTROL EQUIPMENT, AND SHALL SET FORTH MAXIMUM FLOW RATES FOR (1) ALL PROCESSING EQUIPMENT, (2) ALL AIR POLLUTION CONTROL EQUIPMENT, (3) ALL EMISSION SOURCES, AND (4) ALL STACKS AND VENTS. NUMBER OF SHEETS: _____ DRAWING NUMBER(S): _____

12. FOR EACH EMISSION SOURCE AND EACH ITEM OF AIR POLLUTION CONTROL EQUIPMENT IDENTIFIED ON THE PROCESS FLOW DIAGRAM, THE APPLICANT SHALL COMPLETE AND SUBMIT THE APPLICABLE PERMIT APPLICATION FORMS. THE FLOW DIAGRAM SHALL INDICATE THROUGH WHICH STACK OR VENT AN EMISSION SOURCE OR ITS RELATED AIR POLLUTION CONTROL EQUIPMENT IS EXHAUSTED. IF IT IS EXHAUSTED WITHIN A BUILDING, SO INDICATE.

13. IF THIS IS AN APPLICATION FOR AN OPERATING PERMIT, AND THE APPLICANT IS INCORPORATING BY REFERENCE PREVIOUSLY GRANTED INSTALLATION OR CONSTRUCTION PERMITS, HE SHALL COMPLETE FORM APC-210, ENTITLED "DATA AND INFORMATION -- INCORPORATION BY REFERENCE."

14. IF THIS IS AN APPLICATION FOR AN OPERATING PERMIT, AND THE STARTUP OF ANY EMISSION SOURCE DESCRIBED BY THIS APPLICATION PRODUCES AN AIR CONTAMINANT IN EXCESS OF APPLICABLE STANDARDS, THE APPLICANT MAY REQUEST PERMISSION TO EXCEED SUCH STANDARDS BY COMPLETING FORM APC-203, ENTITLED "OPERATION DURING STARTUP."

15. IF THIS IS AN APPLICATION FOR AN OPERATING PERMIT, AND THE APPLICANT IS APPLYING FOR PERMISSION TO OPERATE AN EMISSION SOURCE DURING MALFUNCTIONS OR BREAKDOWNS PURSUANT TO PCB REGS., CHAPTER 2, RULE 105, THE APPLICANT MAY REQUEST SUCH PERMISSION BY COMPLETING FORM APC-204, ENTITLED "OPERATION DURING MALFUNCTION AND BREAKDOWN."

16. IF THIS IS AN APPLICATION FOR AN OPERATING PERMIT AND ALL OR ANY PART OF THE PROCESS MUST BE CONTROLLED OR MODIFIED TO COMPLY WITH APPLICABLE REGULATIONS, THE APPLICANT SHALL COMPLETE FORM APC-202, ENTITLED "COMPLIANCE PROGRAM & PROJECT COMPLETION SCHEDULE."

17. IF THIS IS AN APPLICATION FOR AN OPERATING PERMIT, DOES THE OPERATION COVERED BY THIS APPLICATION REQUIRE AN EPISODE ACTION PLAN? ☐ YES ☐ NO

18. WAS EACH EMISSION SOURCE COVERED BY THIS APPLICATION, AS OF APRIL 14, 1972, IN COMPLIANCE WITH THE "RULES AND REGULATIONS GOVERNING THE CONTROL OF AIR POLLUTION," ADOPTED BY THE FORMER AIR POLLUTION CONTROL BOARD AND CONTINUED EFFECTIVE PURSUANT TO SECTION 49(c) OF THE ENVIRONMENTAL PROTECTION ACT? ☐ YES ☐ NO

19. IF THIS IS AN APPLICATION FOR AN OPERATING PERMIT, WAS THE OPERATION THE SUBJECT OF A VARIANCE PETITION FILED WITH THE ILLINOIS POLLUTION CONTROL BOARD ON OR BEFORE JUNE 13, 1972? ☐ YES ☐ NO

IF "YES," CITE PCB NUMBER(S): _____ *DATE OF BOARD ORDER:* _____

HAD THE APPLICANT ON OR BEFORE APRIL 14, 1972, COMMENCED CONSTRUCTION OF EQUIPMENT OR MODIFICATIONS SUFFICIENT TO ACHIEVE COMPLIANCE WITH THE APPLICABLE LIMITATIONS OF THE "RULES AND REGULATIONS GOVERNING THE CONTROL OF AIR POLLUTION," ADOPTED BY THE FORMER AIR POLLUTION CONTROL BOARD AND CONTINUED EFFECTIVE PURSUANT TO SECTION 49(c) OF THE ENVIRONMENTAL PROTECTION ACT? ☐ YES ☐ NO

IF "NO," EXPLAIN IN DETAIL AND MARK YOUR EXPLANATION AS EXHIBIT D.

TOTAL NUMBER OF PAGES IN EXHIBIT D: _____

20. IF THIS IS AN APPLICATION FOR AN OPERATING PERMIT, THE APPLICANT SHALL SUBMIT AN ESTIMATE OF THE MAXIMUM ONE-HOUR AMOUNTS OF PARTICULATE MATTER, SULFUR DIOXIDE, CARBON MONOXIDE, OXIDES OF NITROGEN, AND ORGANIC MATERIAL EMITTED FROM ALL SOURCES LOCATED ON THE PLANT OR PREMISES. THIS ESTIMATE SHALL INCLUDE ALL EMISSION SOURCES LOCATED ON THE APPLICANT'S PREMISES AND NOT JUST THE EMISSION SOURCES DESCRIBED IN THIS APPLICATION.

MATERIAL	MAXIMUM ONE-HOUR AMOUNTS	MATERIAL	MAXIMUM ONE-HOUR AMOUNTS	MATERIAL	MAXIMUM ONE-HOUR AMOUNTS
PARTICULATE MATTER	_____ LB	SULFUR DIOXIDE	_____ LB	NITROGEN OXIDES	_____ LB
ORGANIC MATERIAL	_____ LB	CARBON MONOXIDE	_____ LB		

21. WHAT IS THE SIZE (IN ACRES) OF APPLICANT'S PREMISES?

22. LIST AND IDENTIFY ALL FORMS, EXHIBITS, AND OTHER INFORMATION SUBMITTED AS PART OF THIS APPLICATION. PLEASE NUMBER EVERY PAGE AND STATE THE TOTAL NUMBER OF PAGES IN THIS APPLICATION.

STATE OF ILLINOIS
ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF AIR POLLUTION CONTROL
2200 CHURCHILL ROAD
SPRINGFIELD, ILLINOIS 62706

DATA AND INFORMATION INCORPORATION BY REFERENCE	FOR AGENCY USE ONLY

1. NAME OF OWNER: LAKE SALVAGE CO., INC.	2. NAME OF CORPORATE DIVISION OR PLANT (IF DIFFERENT FROM OWNER):
3. STREET ADDRESS OF EMISSION SOURCE: 2527 W. LAKE ST.	4. CITY OF EMISSION SOURCE: CHICAGO
5. IDENTIFICATION NUMBER: 321 807 645	

6a. APPLICATION NUMBER:	b. IDENTIFICATION ON FLOW DIAGRAM: AS PER DRAWING SUBMITTED
c. ☐ CONSTRUCTION ☒ OPERATION OF WIRE RECLAIMING FURNACE	
d. DOES THE DATA & INFORMATION PREVIOUSLY SUBMITTED REMAIN TRUE, CORRECT, CURRENT & COMPLETE? NEW COMPLETED INSTALLATION ☐ YES ☐ NO	
e. IF "NO," SUBMIT THE APPLICABLE FORMS OR CLEARLY STATE THE DATA & INFORMATION WHICH IS NO LONGER TRUE, CORRECT, CURRENT AND COMPLETE.	

7a. APPLICATION NUMBER:	b. IDENTIFICATION ON FLOW DIAGRAM:
c. ☐ CONSTRUCTION ☐ OPERATION OF	
d. DOES THE DATA & INFORMATION PREVIOUSLY SUBMITTED REMAIN TRUE, CORRECT, CURRENT & COMPLETE? ☐ YES ☐ NO	
e. IF "NO," SUBMIT THE APPLICABLE FORMS OR CLEARLY STATE THE DATA & INFORMATION WHICH IS NO LONGER TRUE, CORRECT, CURRENT AND COMPLETE.	

8a. APPLICATION NUMBER:	b. IDENTIFICATION ON FLOW DIAGRAM:
c. ☐ CONSTRUCTION ☐ OPERATION OF	
d. DOES THE DATA & INFORMATION PREVIOUSLY SUBMITTED REMAIN TRUE, CORRECT, CURRENT & COMPLETE? ☐ YES ☐ NO	
e. IF "NO," SUBMIT THE APPLICABLE FORMS OR CLEARLY STATE THE DATA & INFORMATION WHICH IS NO LONGER TRUE, CORRECT, CURRENT AND COMPLETE.	

9a. APPLICATION NUMBER:	b. IDENTIFICATION ON FLOW DIAGRAM:
c. ☐ CONSTRUCTION ☐ OPERATION OF	
d. DOES THE DATA & INFORMATION PREVIOUSLY SUBMITTED REMAIN TRUE, CORRECT, CURRENT & COMPLETE? ☐ YES ☐ NO	
e. IF "NO," SUBMIT THE APPLICABLE FORMS OR CLEARLY STATE THE DATA & INFORMATION WHICH IS NO LONGER TRUE, CORRECT, CURRENT AND COMPLETE.	

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

2200 Churchill Road Springfield, Illinois 62706

Dr. Richard H. Briceland, Director

AUGUST 11, 197
PERMIT EXPIRATION DATE 07-26-81

LAKE SALVAGE CO INC
2527 N LAKE ST
CHICAGO, IL.
60612

ATTENTION - ALEX SIMKIN

REFERENCE
APPLICATION NO. - 76022073
ID NUMBER - 031600EPK 321 817s45
RECEIVED - 07-23-76
OPERATION OF - WIRE RE-CLAIMING FURNACE
LOCATION - 2527 N LAKE ST
CHICAGO
COOK

GENTLEMEN:

PERMIT IS HEREBY GRANTED TO OPERATE THE ABOVE-REFERENCED EQUIPMENT.

THIS PERMIT IS SUBJECT TO THE FOLLOWING CONDITIONS:

1. STANDARD CONDITIONS ATTACHED HERETO AND INCORPORATED HEREIN BY REFERENCE.

VERY TRULY YOURS,

KEITH J. CONKLIN, P.E.
MANAGER, PERMIT SECTION
DIVISION OF AIR POLLUTION CONTROL

AMT

cc: Chi DEC

8.13.76 REB

J

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY — MEMORANDUM

DATE: November 10, 1980

RECEIVED
NOV 17 1980

ID#: 031600 EPK

TO: Sy Levine, IEPA-DAPC Region 1 Manager

FROM: Kerry Keller

SUBJECT:

Facility: Lake Salvage Co. Inc.

Address: 2527 W. Lake St. Chicago, IL. 60612

Person Contacted & Title: Mr. Alex Simkin - Owner

Date & Basis of Investigation: October 30, 1980 - Inspection
___Potential 100 T/Y ✓TAS Update ___Quarterly Report ___Other(Explain)

Emissions(List sources & calculations, Actual & Allowable, #/hr, T/Y):

Disposition: ✓Form 177 ✓TAS Checked ✓TAS Coded ___Warning Letter
___Quarterly Report ✓No violations & Facility has all necessary permits

Comments: On October 30, 1980 an unannounced inspection was conducted of Lake Salvage Co. This facility operates a scrap metal salvage operation which operates a wire reclaiming furnace. This furnace is fairly new (2-3 yrs.) and is equipped with four afterburners and a wet scrubber. On the day of the inspection the incinerator was in operation and there were no visible emission or detectable oders. No further action needs to be taken at this time.

K

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

ID#: 031 600 EPK

DATE: February 19, 1981

TO: Sy Levine, IEPA-DAPC Region 1 Manager

FROM: Kerry Keller

SUBJECT:

Facility: Lake Salvage

Address: 2527 W. Lake St., Chicago, Ill. 60612

Person Contacted & Title: Mr. Alex Simkin - Owner

Date & Basis of Investigation: February 11, 1981 - Inspection

___Potential 100 T/Y ___TAS Update ___Quarterly Report ✓Other(Explain) On work plan

Emissions(List sources & calculations, Actual & Allowable, #/hr, T/Y):

Disposition: ✓Form 177 ___TAS Checked ___TAS Coded ___Warning Letter
___Quarterly Report ✓No violations & Facility has all necessary permits

Comments: On February 19, 1981 an unannounced inspection was conducted of Lake Salvage. This facility operates a wire burning incinerator. On the day of the inspection the incinerator was in operation. Observations were made for approximately 30 minutes. During that time no visible emissions were observed. This is the only source at this facility and no further action is required at this time.

EPA-90 (Rev. 6/75-20M)

Illinois Environmental Protection Agency · 2200 Churchill Road, Springfield, IL 62706

(312)345-9780

CERTIFIED MAIL

COMPLIANCE INQUIRY LETTER

June 25, 1987

Mr. Alex Simkin
6531 N. Sacramento Avenue
Chicago, Illinois 60612

Re: Wire Reclaiming Furnace
located at Lake Salvage
Co., Inc.

Dear Mr. Simkin:

On June 8, 1987, the Agency informed you by letter of the confirmed results of the chemical analysis of an ash sample which was collected from your incinerator in April, 1987. Those results indicated high levels of 2, 3, 7, 8 - TCDD equivalent concentrations (TEFs).

In its letter of June 8, the Agency made several requests of you as owner and former operator of Lake Salvage Co., Inc. Subsequently, you orally assured the Agency's attorney, Bobella Glatz, that you were complying with these requests on a continuing basis. This letter reiterates those requests and we expect that you are still complying with those requests.

However, the Agency now additionally must inform you of apparent non-compliance with the requirements of Ill. Rev. Stat., Ch. 111½, pars. 1009(a) and 1009(b) and 35 Ill. Adm. Code 201.141. The apparent violations, based on information obtained as a result of the ash sampling conducted at your incinerator in April, 1987, are as follows:

Ill. Rev. Stat., Ch. 111½, par. 1009(a):

No person shall:

a. Cause or threaten or allow the discharge or emission of any contaminant into the environment in any State so as to cause or tend to cause air pollution in Illinois, either alone or in combination with contaminants from other sources, or so as to violate regulations or standards adopted by the Board under this Act;

N

Lake Salvage

(4)

TRIANGLE LABORATORIES, INC.
PCDD/PCDF ANALYSIS

ANALYST	SP	FILE #	M870985
DATE	5/15/87	CONCAL #	M870982
SAMPLE WEIGHT	10.00	TLI #	8701368
SAMPLE ID	WRI-4A DILUTED		

NAME	CONC. (ppb)	NUMBER	DL	EMPC	RATIO	RT
2378-TCDD	17.50				0.79	26.19
TOTAL TCDD	32.45	6			0.78	
12378-PCDD	46.53				0.61	32.18
TOTAL PCDD	219.01	4			0.59	
123478-HxCDD	41.88				1.26	36.49
123678-HxCDD	88.34				1.29	36.57
123789-HxCDD	85.06				1.29	37.25
TOTAL HxCDD	591.74	7			1.27	
1234678-HpCDD	689.12				1.01	43.38
TOTAL HpCDD	1091.87	2			1.02	
OCDD	1638.45				0.91	49.50
2378-TCDF >>	853.66				0.93	25.38
TOTAL TCDF >>	2830.23	11			0.82	
12378-PCDF >>	1419.94				0.86	30.59
23478-PCDF >>	1042.83				0.85	31.51
TOTAL PCDF >>	6863.80	10			0.70	
123478-HxCDF	* ND		0.013		1.00	
123678-HxCDF	* ND		0.013		1.00	
234678-HxCDF	613.37				1.26	36.39
123789-HxCDF	459.60				1.42	37.47
TOTAL HxCDF >>	4809.90	9			1.13	
1234678-HpCDF >>	1403.75				1.05	42.10
1234789-HpCDF >>	1599.79				0.97	44.14
TOTAL HpCDF >>	4673.21	4			1.00	
OCDF >>	6698.99				0.78	49.54

SURROGATE RESULTS SUMMARY

NAME	CONC. (ppb)	% RECOVERY	RATIO	RT
13C12-TCDF	2.57	128.3	0.74	25.38
37Cl-TCDD	2.63	131.4		26.19
13C12-HxCDF	6.60	329.8	0.02	35.48

INTERNAL STANDARDS RECOVERY RESULTS

NAME	CONC. (ppb)	% RECOVERY	RATIO	RT
2378-13C12-TCDD	1.20	59.8	0.83	26.18
13C12-PCDD	0.86	43.1	0.97	32.18
13C12-HxCDD	1.76	87.9	1.10	36.56
13C12-HpCDD	1.89	94.4	1.09	43.38
13C12-OCDD	2.16	53.9	1.00	49.50

* INTERFERENCE WITH OTHER PEAK

u.

Lake Salvage

TRIANGLE LABORATORIES, INC
2,3,7,8-TCDD/TCDF ANALYSIS

ANALYST	JAJ	FILE #	M870999
DATE	5-13-87	CONCAL #	M870993
SAMPLE WEIGHT	10.00	TLI #	8701368
SAMPLE ID	WRI 4A		

NAME	CONC (ng/g)	DL	RATIO	RT
2378-TCDF	1928.77		0.798	16.56
2378-TCDD	19.83		0.931	16.10

SURROGATE RESULTS SUMMARY

NAME	CONC (ng/g)	% RECOVERY	RATIO	RT
13C12-TCDF	2.17	108.64	0.860	16.55
37Cl-TCDD	3.93	196.47		16.09

INTERNAL STANDARDS RECOVERY RESULTS

NAME	CONC (ng/g)	% RECOVERY	RATIO	RT
2378-13C12-TCDD	1.12	56.01	0.842	16.08

Lake Saluda -

TRIANGLE LABORATORIES, INC.
PCDD/PCDF ANALYSIS

ANALYST	MDC	FILE #	M871720
DATE	7-11-87	CONCAL #	M871712
SAMPLE WEIGHT	1.00	TLI #	8701425
SAMPLE ID	WRI-4-B-ASH		

NAME	AMT (ng/g)	NUMBER	DL	EMPC	RATIO	RT
2378-TCDD	26.40				0.89	25.21
TOTAL TCDD	109.89	7			0.78	
12378-PCDD	60.55				0.61	30.13
TOTAL PCDD	415.47	9			0.68	
123478-HxCDD	92.03				1.31	36.48
123678-HxCDD	202.96				1.29	36.56
123789-HxCDD	192.20				1.27	37.23
TOTAL HxCDD	1349.82	6			1.26	
1234678-HpCDD	1284.54				1.02	42.41
TOTAL HpCDD	1956.40	2			1.02	
OCDD	3553.56				0.89	47.35
2378-TCDF	2162.58				0.92	24.40
TOTAL TCDF	8554.12	12			0.81	
12378-PCDF	2993.75				0.68	28.58
23478-PCDF	2216.25				0.69	29.47
TOTAL PCDF	11492.84	13			0.66	
123478-HxCDF*	3981.07				1.55	35.41
123678-HxCDF	ND		0.045		1.00	#VALUE!
234678-HxCDF	1366.86				1.25	36.37
123789-HxCDF	1099.67				1.22	37.45
TOTAL HxCDF	7799.58	10			1.19	
1234678-HpCDF	3198.24				0.97	41.13
1234789-HpCDF	3544.35				0.96	43.17
TOTAL HpCDF	10014.32	4			0.97	
OCDF	17466.90				0.92	47.41

SURROGATE RESULTS SUMMARY

NAME	AMT (ng/g)	% RECOVERY	RATIO	RT
13C12-TCDF	20.35	101.7	0.75	24.40
37Cl-TCDD	23.28	116.4		25.21
13C12-HxCDF	24.96	124.8	1.08	35.45

INTERNAL STANDARDS RECOVERY RESULTS

NAME	AMT (ng/g)	% RECOVERY	RATIO	RT
2378-13C12-TCDD	20.05	100.3	0.74	25.26
13C12-PCDD	18.42	92.1	0.62	30.13
13C12-HxCDD	13.38	66.9	1.21	36.55
13C12-HpCDD	19.19	96.0	1.18	42.42
13C12-OCDD	33.03	82.6	0.96	47.35

* Saturated peak

Lake Salvage

TRIANGLE LABORATORIES, INC
2,3,7,8-TCDD/TCDF ANALYSIS

ANALYST	mdc	FILE #	M871773
DATE	7-13-87	CONCAL #	M871763
SAMPLE WEIGHT	1.00	TLI #	8701425
SAMPLE ID	WRI-4-B-ASH		

NAME	CONC (ng/g)	DL	EMPC	RATIO	RT
2378-TCDF	2263.55			0.892	15.14
2378-TCDD	35.10			0.783	13.09

SURROGATE RESULTS SUMMARY

NAME	CONC (ng/g)	% RECOVERY	RATIO	RT
13C12-TCDF	21.28	106.42	0.789	15.16
37Cl-TCDD	22.76	113.78		13.09

INTERNAL STANDARDS RECOVERY RESULTS

NAME	CONC (ng/g)	% RECOVERY	RATIO	RT
2378-13C12-TCDD	18.96	94.80	0.822	13.08

TRIANGLE LABORATORIES, INC.
PCDD/PCDF ANALYSIS

Lake Salvage Ash Storage area

ANALYST	MDC	FILE #	M871721
DATE	7-11-87	CONCAL #	M871712
SAMPLE WEIGHT	5.11	TLI #	8701425
SAMPLE ID	WRI-4-GRD		

NAME	AMT (ng/g)	NUMBER	DL	EMPC	RATIO	RT
2378-TCDD	0.09				0.88	25.20
TOTAL TCDD	0.81	5			0.78	
12378-PCDD	0.25				0.65	30.12
TOTAL PCDD	2.68	7			0.66	
123478-HxCDD	0.32				1.16	36.48
123678-HxCDD	0.88				1.32	36.55
123789-HxCDD	1.04				1.28	37.22
TOTAL HxCDD	8.51	6			1.26	
1234678-HpCDD	9.59				1.02	42.41
TOTAL HpCDD	17.35	2			1.05	
OCDD	28.79				0.84	47.26
2378-TCDF	5.57				0.75	24.38
TOTAL TCDF	16.88	11			0.76	
12378-PCDF	3.69				0.65	28.52
23478-PCDF	2.80				0.60	29.46
TOTAL PCDF	19.23	9			0.64	
123478-HxCDF	12.17				1.26	35.41
123678-HxCDF	3.88				1.25	35.51
234678-HxCDF	4.24				1.18	36.36
123789-HxCDF	0.61				1.19	37.43
TOTAL HxCDF	34.83	10			1.25	
1234678-HpCDF	26.97				1.03	41.13
1234789-HpCDF	6.56				0.96	43.17
TOTAL HpCDF	44.99	4			1.02	
OCDF	67.79				0.90	47.38

SURROGATE RESULTS SUMMARY

NAME	AMT (ng/g)	% RECOVERY	RATIO	RT
13C12-TCDF	3.66	93.4	0.77	24.36
37Cl-TCDD	3.22	82.2		25.19
13C12-HxCDF	3.76	96.0	1.17	35.42

INTERNAL STANDARDS RECOVERY RESULTS

NAME	AMT (ng/g)	% RECOVERY	RATIO	RT
2378-13C12-TCDD	3.87	98.8	0.93	25.18
13C12-PCDD	4.01	102.6	0.67	30.12
13C12-HxCDD	2.81	71.9	1.26	36.54
13C12-HpCDD	3.29	84.1	0.98	42.40
13C12-OCDD	6.59	84.1	0.94	47.26

TRIANGLE LABORATORIES, INC
2,3,7,8-TCDD/TCDF ANALYSIS

Lake Salvage

ANALYST	mdc	FILE #	M871793
DATE	7-13-87	CONCAL #	M871763
SAMPLE WEIGHT	5.11	TLI #	8701425
SAMPLE ID	WRI-4-GRD		

NAME	CONC (ng/g)	DL	EMPC	RATIO	RT
2378-TCDF	2.58			0.741	15.10
2378-TCDD	0.09			0.796	13.03

SURROGATE RESULTS SUMMARY

NAME	CONC (ng/g)	% RECOVERY	RATIO	RT
13C12-TCDF	3.11	79.58	0.795	15.09
37Cl-TCDD	3.79	96.87		13.06

INTERNAL STANDARDS RECOVERY RESULTS

NAME	CONC (ng/g)	% RECOVERY	RATIO	RT
2378-13C12-TCDD	3.90	99.55	0.846	13.04

Case Narative - 26 Oct 1987

DB-5

TRIANGLE LABORATORIES, INC.
PCDD/PCDF ANALYSIS (D) Lake Salvage

ANALYST: DH
DATE: 10/26/87
SAMPLEWT: 10.26

FILE NAME: M873320
SAMPLE ID: RADIAN WRI-4 - Soil
CASE NO: RADIAN
PROJ NO: 8701648

CONCAL: M873313

Soil near oily area incinerator pass

NAME	CONC(ppb)	NUMBER	DL	EMPC	RATIO	RT
2378-TCDD	0.169				0.65	28.33
TOTAL TCDD	0.699	6			0.76	
12378-PCDD	0.334				0.55	33.52
TOTAL PCDD	3.275	10			0.58	
123478-HxCDD	0.478				1.21	38.42
123678-HxCDD	1.044				1.30	38.49
123789-HxCDD	0.808				1.21	39.17
TOTAL HxCDD	9.165	9			1.23	
1234678-HpCDD	9.603				1.00	43.35
TOTAL HpCDD	16.805	2			1.01	
OCDD	25.342				0.87	48.22
2378-TCDF	30.103				0.75	27.44
TOTAL TCDF	55.998	11			0.74	
12378-PCDF	29.814				0.62	32.25
23478-PCDF	10.195				0.62	33.24
TOTAL PCDF	73.150	11			0.61	
123478-HxCDF	45.253				1.16	37.34
123678-HxCDF	11.552				1.13	37.43
234678-HxCDF	8.225				1.14	38.33
123789-HxCDF	11.501				1.14	39.41
TOTAL HxCDF	89.192	10			1.16	
1234678-HpCDF	51.519				0.95	42.08
1234789-HpCDF	25.838				1.00	44.09
TOTAL HpCDF	105.642	4			0.97	
OCDF	210.880				0.92	48.33

SURROGATE RECOVERY SUMMARY

NAME	CONC (ppb)	% REC.	RATIO	RT
13C12-TCDF	0.82	84.13	0.67	27.44
37CL-TCDD	0.84	86.18		28.32
13C12-HxCDF	1.01	103.63	1.05	37.33

INTERNAL STANDARDS RECOVERY SUMMARY

NAME	CONC (ppb)	% REC.	RATIO	RT
2378-13C12-TCDD	0.64	65.66	0.89	28.32
13C12-PCDD	1.29	132.35	0.57	33.52
13C12-HxCDD	0.67	68.74	1.15	38.48
13C12-HpCDD	0.44	45.14	0.89	43.34
13C12-OCDD	0.41	21.03	0.80	48.22

DB-17

TRIANGLE LABORATORIES. INC
2.3.7.8-TCDD/TCDF ANALYSIS

Lake Salvage

ANALYST	mdc	FILE #	M873498
DATE	11/3/87	CONCAL #	M873496
SAMPLE WEIGHT	10.26	TLI #	8701648
SAMPLE ID	WRI-4-Soil		

NAME	CONC (ppb)	DL	EMPC	RATIO	RT
2378-TCDF	21.94			0.776	22.56
2378-TCDD	0.22			0.738	20.28

SURROGATE RESULTS SUMMARY

NAME	CONC (ppb)	% RECOVERY	RATIO	RT
13C12-TCDF	0.82	84.30	0.872	22.54
37C1-TCDD	0.93	95.86		20.29

INTERNAL STANDARDS RECOVERY RESULTS

NAME	CONC (ppb)	% RECOVERY	RATIO	RT
2378-13C12-TCDD	0.61	62.39	0.833	20.27

Ill. Rev. Stat., Ch. 111½, par. 1009(b):

No person shall:

b ... Construct, install or operate any equipment, facility, vehicle, vessel or aircraft capable of causing or contributing to air pollution or designed to prevent air pollution, of any type designated by Board regulations, without a permit granted by the Agency, or in violation.

35 Ill. Adm. Code 201.141 Prohibition of Air Pollution:

No person shall cause or threaten or allow the discharge or emission of any contaminant into the environmental in any State so as, either alone or in combination with contaminants from other sources, to cause or tend to cause air pollution in Illinois, or so as to violate the provisions of this Chapter, or so as to prevent the attainment or maintenance of any applicable ambient air quality standard.

The levels of dioxins and related compounds (furans) found in the ash in your incinerator indicate that your facility has, in the past, burned materials which you were not permitted to burn by the terms of your permits with this Agency. In your last permit with this Agency, Condition 1 stated as follows:

Wire insulated with polyvinyl chloride or asbestos and any wire or scrap containing the fuming metals tin, zinc or lead shall not be charged to this furnace.

Because this permit condition was violated, resulting violations of the Environmental Protection Act and the Regulations of the Illinois Pollution Control Board have occurred. These violations could be the subject of enforcement action by the Agency pursuant to the Illinois Environmental Protection Act, Ill. Rev. Stat., Ch. 111½, par. 1001 et seq.

A pre-enforcement conference will be held at 1701 First Avenue, Maywood, Illinois at 1:00 p.m. on July 14, 1987. The purpose of this conference will be to discuss the reasons for the apparent violations outlined above (including information regarding all materials burned) and to outline any steps which you would initiate to prevent any further recurrence. You should therefore bring such personnel and records to the Conference as will enable complete discussion of the above items. Please confirm your attendance at the conference within seven (7) days from the date of this letter. If you desire to attend such a conference but are unavailable on the scheduled date, please contact this office within seven days.

Also, please submit in writing, within 10 days of the receipt of this letter, your written statement that 1) operation of the incinerator has ceased and will not begin again until a new operating permit has been issued by the Agency for the incinerator; and 2) describing in detail how the incinerator itself and the process area have been secured by you.

Sincerely,

Sy Levine WRDI

Sy Levine
Regional Supervisor
Field Operations Section
Division of Air Pollution Control

SY:mm

cc: M. Zamco
T. Sweitzer
B. Glatz
L. Cooper, APC/Enforcement
I.D. File
CIL Book
J. Perino
C. Schien

031600EPK

LAKE SALVAGE CO.
2527 W. LAKE STREET
CHICAGO, ILLINOIS 60612

July 2, 1987

Illinois Environmental Protection Agency
2200 Churchill Road
Springfield, Illinois 62706

Dear Sir:

Per your written request of June 25, 1987, we wish to advise you that-

(1) Lake Salvage Co. has been shut down since September, 1986 and operation of the incinerator has ceased as of that period;

(2) The ignition burners and afterburners are being dismantled from the furnace and placed in a locked storage area;

(3) The front chambers of the furnace are locked; and

(4) Entrance to the entire business locaton is locked.

I hope this satisfies your requirements.

Very truly yours,

Edward Simkin

Edward Simkin
Treasurer

0.

Illinois Environmental Protection Agency 2200 Churchill Road, Springfield, IL 62706

217/782-2113

June 10, 1988

Lake Salvage Co.
Attn: Edward Simkin, Treasurer
2527 W. Lake Street
Chicago, IL 60612

Application No.: 76020275
I.D. No.: 031600EPK
Operation of: Wire Reclaiming Furnace
Letter Dated: July 2, 1987

The Agency hereby acknowledges the receipt of your above-referenced letter and confirms the withdrawal of your operating permit in accordance with your request.

If you have any questions concerning this matter, please contact Betty Ascher at 217/782-2113.

Terry A. Sweitzer, P.E.
Manager, Permit Section
Division of Air Pollution Control

TAS:BEA:jmm/4917H/36

cc: Region 1

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SEP 1 1988
IEPA-DLPC

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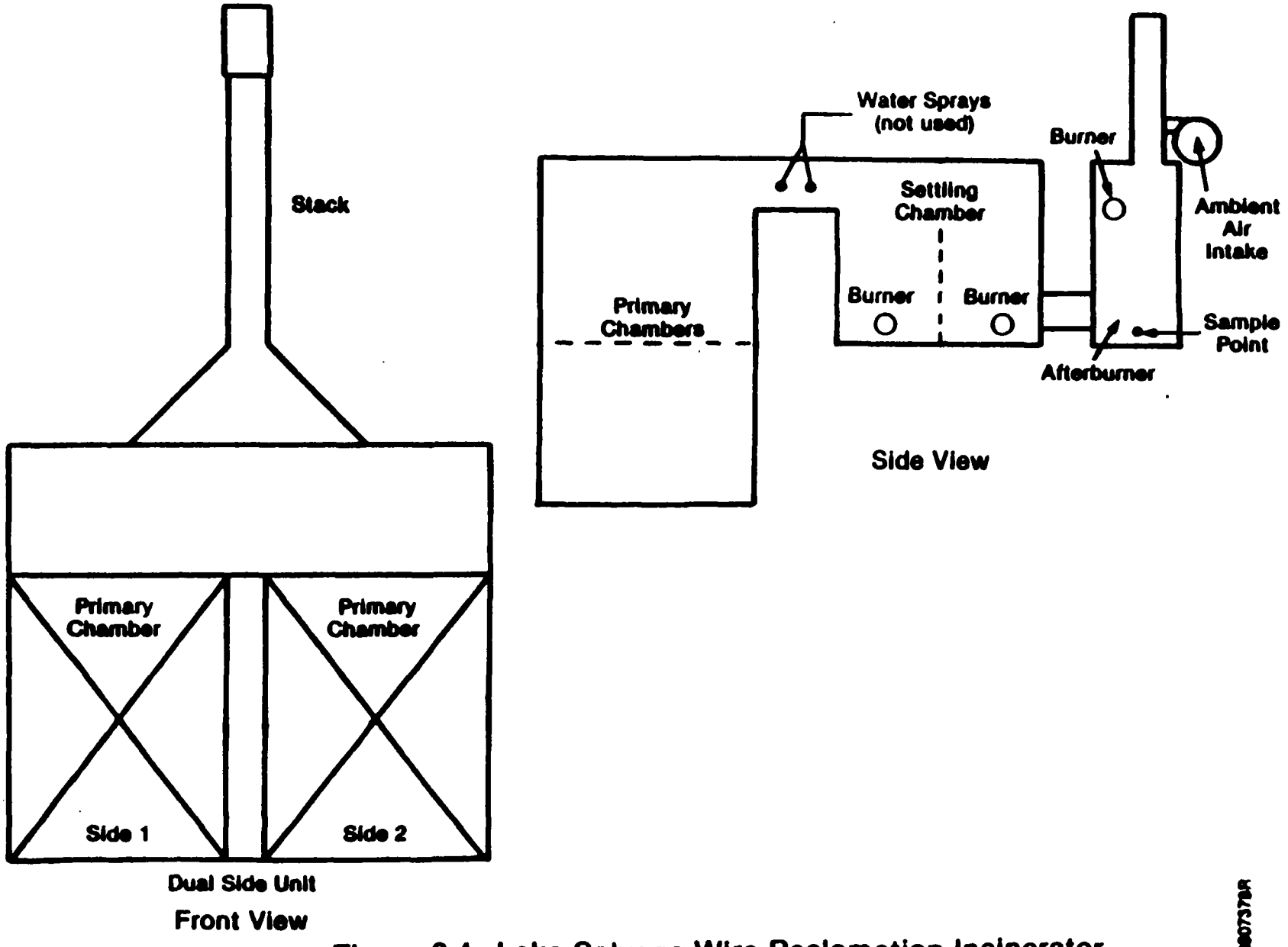


Figure 3-4. Lake Salvage Wire Reclamation Incinerator

From Page No. _

4/15/87 Lake Salvage Company

Manufacturer: RCF Model RCF 8001
- owner said unknown, custom design

~~= 7.5 height x 6.5 wide x 15.5~~

1° - 7.5 height x 15.5 wide x 6.5 long Vol = 755.6

2° - 3.5 long x 9 wide x 12.5 Vol = 393.75 ft³

- system has four burners all 450,000 BTU/hr
- Charge rate average was 450 lb / load with operation 5 days per week. 600# max.
- System is not operating now - down since Sept 86
-
- Ash was either thrown into trash or sold for reclaiming
- Stack ~~long~~ height 35' and 1' diameter
- The incinerator was a dual sided unit, but wire was burned on only one side at a time.
- The system has a wet scrubber that was not used

- Air flow to the system was controlled by louvers on the front doors only. There did not appear to be any additional air intake at the afterburner except for a combustion air fan.

- Feeds consisted of heavy cable and house wire
  - no transformers, capacitors or PVC wire was burned.

- System was preheated before wire was put in.

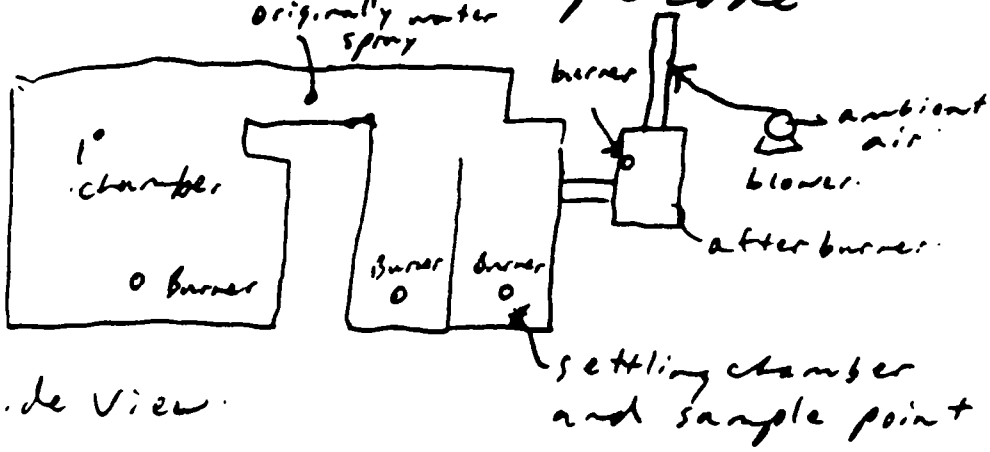
To Page N

Witnessed & Understood by me	Date	Inspected By	Date	R

- Two transformers were seen on site. No other scrap was on the site. Tag on the transformers said < 1 ppm PCB in oil?

- Samples collected included the following:

Location Sample code



Side View

- The primary chamber and settling chamber burners used only until the wire starts burning

- ~~The furnace location~~

TABLE 3-1. WIRE USE AND COMPOSITION

Wire Use	Composition of Wire Insulation and Sheiting Material
Power circuits for use in substations, industrial plants, refineries.	Polyethylene insulation PVC jacket
Control and signal circuits for utilities, steel mills, paper mills, shipyards, chemical plants, refrigeration foundries, breweries, municipalities, machine sites.	Flame-retardant polymer insulation and nylon neoprene jacket. plants, and equipment manufacture, construction
Appliances with temperatures of <105°C in air and 80°C when exposed to oil.	PVC insulation nylon jacket
Heaters, ovens, dryers, sunlamps and therapeutic apparatus (high voltage products).	silicone-rubber insulation lacquered glass braid jacket
Power circuits up to 5 kv.	x-linked polyethylene extruded semi-conducting material as shield
Signal and traffic systems.	Polyethylene insulation PVC jacket
Mining equipment, power shovels, bucket cranes, welding machines, submersible pumps, road equipment, drills, shuttle cars, cranes, and loaders.	Ethylene propylene rubber insulation textured fiber composition reinforcing braid Hypalon jacket
Heavy duty service--garages, portable stagelights, heavy tools and equipment.	PVC or SBR or EP rubber insulation with jacket (sometimes neoprene, SBR)
Electric mixers, polishers, washing machines, portable appliances, vacuum cleaners, office and domestic equipment.	PVC or SBR insulation PVC or neoprene jacket
Lighting circuits, runways, airport lighting.	Polyethylene insulation
Industrial and utility plants.	Ethylene propylene rubber PVC jacket
Fans, clocks, lamps, radios, small appliances.	PVC insulation
Small motors and tools.	SBR rubber insulation neoprene jacket
Use in conduit, raceway aerial, and hazard locations.	PVC-nylon insulation PVC jacket
Conveyors, portable power equipment, dockside cables, mobile homes, oil rigs, battery chargers, cranes, pumps, clams, assembly lines, paving machines, rock crushers.	EP rubber insulation chlorinated polyethylene jacket
Air conditioning thermostat, annunciator systems.	Thermoplastic or PVC insulation PVC jacket
Building wire and lighting.	PVC insulation nylon jacket
Switchboards, railcar equipment.	X-linked chlorosulfonated polyethylene jacket and insulation

TABLE 1-1. NOMENCLATURE AND SCHEDULE OF THEORETICAL CHLORINATED DIOXIN ISOMERS

Chlorinated Dioxin Compound (abbreviation)	No. of Isomers
Monochlorodibenzo-p-dioxin (Mono-CDD)	2
Dichlorodibenzo-p-dioxin (Di-CDD)	10
Trichlorodibenzo-p-dioxin (Tri-CDD)	14
Tetrachlorodibenzo-p-dioxin (TCDD)	22
Pentachlorodibenzo-p-dioxin (Penta-CDD)	14
Hexachlorodibenzo-p-dioxin (Hexa-CDD)	10
Heptachlorodibenzo-p-dioxin (Hepta-CDD)	2
Octachlorodibenzo-p-dioxin (Octa-CDD)	1
TOTAL ISOMERS	75

TABLE 1-2. NOMENCLATURE AND SCHEDULE OF THEORETICAL CHLORINATED FURAN ISOMERS

Chlorinated Furan Compound (abbreviation)	No. of Isomers
Monochlorodibenzofuran (Mono-CDF)	4
Dichlorodibenzofuran (Di-CDF)	16
Trichlorodibenzofuran (Tri-CDF)	28
Tetrachlorodibenzofuran (TCDF)	38
Pentachlorodibenzofuran (Penta-CDF)	28
Hexachlorodibenzofuran (Hexa-CDF)	16
Heptachlorodibenzofuran (Hepta-CDF)	4
Octachlorodibenzofuran (Octa-CDF)	1
TOTAL ISOMERS	135

TABLE 1-3. TOXIC EQUIVALENCY FACTORS USED IN ESTIMATING 2378-TCDD EQUIVALENTS [2]

Congener	Toxic Equivalency Factor (Multiplier)
2378-TCDD	1.0
Other TCDD	0.01
12378-PCDD	0.5
Other PCDD	0.005
123478-HxCDD	0.04
123678-HxCDD	0.04
123789-HxCDD	0.04
Other HxCDD	0.0004
1234678-HpCDD	0.001
Other Hepta-CDD	0.00001
Octa-CDD	0
2378-TCDF	0.1
Other TCDF	0.001
12378-PCDF	0.1
23478-PCDF	0.1
Other OCDF	0.001
123478-HxCDF	0.01
123678-HxCDF	0.01
234678-HxCDF	0.01
123789-HxCDF	0.01
Other HxCDF	0.0001
1234678-HpCDF	0.001
1234789-HpCDF	0.001
Other Hepta-CDF	0.00001
Octa-CDF	0

TABLE 4-9. 2378-TCDD TOXIC EQUIVALENT CONCENTRATIONS FOR THE ILLINOIS WRI SOIL SAMPLES

Congener	2378-TCDD TOXIC EQUIVALENTS FACTORS	EDELMAN	ALCO STEEL "C" (b)	ALCO STEEL "D"	ELGIN	2378-TCDD TOXIC EQUIVALENTS (ng/g) LAKE SALVAGE[c] ASH STORAGE AREA	LAKE SALVAGE[c] INCINERATOR AREA	MIDWEST	PIELET BROTHERS	ALLIED	MIDLAND
2378-TCDD	1	0.020	3.56	0.000	1.53	[illegible]	0.169	0.000	0.000	0.120	0.000
OTHER TCDD	0.01	0.003	0.293	0.008	0.288	[illegible]	0.005	0.021	0.000	0.023	0.004
12378-PCDD	0.5	0.085	5.34	0.095	2.55	[illegible]	0.167	0.230	0.000	0.000	0.080
OTHER PCDD	0.005	0.010	0.463	0.009	0.425	[illegible]	0.015	0.032	0.001	0.040	0.009
123478-HxCDD	0.04	0.010	0.509	0.009	0.245	[illegible]	0.019	0.021	0.000	0.000	0.009
123678-HxCDD	0.04	0.028	1.24	0.020	0.871	[illegible]	0.042	0.066	0.003	0.072	0.021
123789-HxCDD	0.04	0.020	1.45	0.048	0.985	[illegible]	0.032	0.064	0.006	0.106	0.031
OTHER HxCDD	0.0004	0.002	0.062	0.002	0.070	[illegible]	0.003	0.006	0.000	0.007	0.002
1234678-HpCDD	0.001	0.007	0.198	0.007	0.216	[illegible]	0.010	0.016	0.001	0.018	0.004
OTHER HpCDD	0.00001	0.000	0.001	0.000	0.002	[illegible]	0.000	0.000	0.000	0.000	0.000
OCDD	0	0.000	0.000	0.000	0.000	[illegible]	0.000	0.000	0.000	0.000	0.000
TOTAL PCDD						[illegible]					
2378-TCDF	0.1	0.047	33.5	0.236	2.20	[illegible]	2.19	0.173	0.025	0.233	0.418
OTHER TCDF	0.001	0.007	0.771	0.014	0.175	[illegible]	0.034	0.023	0.002	0.027	0.022
12378-PCDF	0.1	0.035	34.9	0.250	2.69	[illegible]	2.98	0.202	0.000	0.216	0.243
23478-PCDF	0.1	0.136	25.5	0.244	3.76	[illegible]	1.02	0.350	0.000	0.470	0.291
OTHER PCDF	0.001	0.007	0.724	0.013	0.204	[illegible]	0.033	0.022	0.002	0.028	0.013
123478-HxCDF	0.01	0.043	4.54	0.081	1.26	[illegible]	0.458	0.127	0.012	0.169	0.071
123678-HxCDF	0.01	0.014	2.63	0.025	0.407	[illegible]	0.116	0.043	0.004	0.054	0.022
234678-HxCDF	0.01	0.024	0.928	0.024	0.515	[illegible]	0.062	0.062	0.010	0.068	0.025
123789-HxCDF	0.01	0.006	0.907	0.000	0.048	[illegible]	0.115	0.003	0.000	0.000	0.003
OTHER HxCDF	0.0001	0.001	0.072	0.001	0.018	[illegible]	0.001	0.002	0.000	0.002	0.001
1234678-HpCDF	0.001	0.014	0.575	0.016	0.264	[illegible]	0.052	0.039	0.006	0.049	0.014
1234789-HpCDF	0.001	0.002	0.618	0.000	0.070	[illegible]	0.028	0.007	0.001	0.006	0.003
OTHER HpCDF	0.00001	0.000	0.004	0.000	0.001	[illegible]	0.000	0.000	0.000	0.000	0.000
OCDF	0	0.000	0.000	0.000	0.000	[illegible]	0.000	0.000	0.000	0.000	0.000
TOTAL PCDF						[illegible]					
TOTAL PCDD+PCDF	2378-TCDD TOXIC EQUIVALENT	0.520	119	1.10	18.8	[illegible]	7.57	1.53	0.074	1.73	1.29

[a] Not detected congeners are considered zero for calculating 2378-TCDD toxic equivalents.

[b] Average of duplicate analyses.

[c] Aluminum sweat furnace.

TABLE 4-8. 2378-TCDD TOXIC EQUIVALENT CONCENTRATIONS FOR THE ILLINOIS WRI ASH SAMPLES

Congener	2378-TCDD TOXIC EQUIVALENTS FACTORS	2378-TCDD TOXIC EQUIVALENTS (ng/g)[a] EDELMAN	ALCO STEEL	ELGIN "B"	ELGIN "C"	LAKE SALVAGE	MIDWEST[b]	PIELET BROTHERS	ALLIED	WESTING-HOUSE[c]	MIDLAND	ROCK ISLAND[c]
2378-TCDD	1	0.000	10.7	40.3	29.3	26.4	0.290	0.036	0.000	0.000	0.051	0.000
OTHER TCDD	0.01	0.000	1.38	5.62	3.75	0.835	0.158	0.010	0.079	0.000	0.016	0.000
12378-PCDD	0.5	0.000	14.2	55.2	35.3	30.3	0.635	0.094	0.000	0.005	0.156	0.000
OTHER PCDD	0.005	0.001	1.37	7.42	5.27	1.77	0.181	0.019	0.240	0.000	0.033	0.000
123478-HxCDD	0.04	0.000	1.72	6.22	4.29	3.68	0.074	0.011	0.000	0.000	0.020	0.000
123678-HxCDD	0.04	0.005	3.69	14.4	11.5	8.12	0.212	0.037	0.398	0.000	0.062	0.000
123789-HxCDD	0.04	0.006	1.52	17.6	13.1	7.69	0.267	0.050	0.561	0.001	0.083	0.000
OTHER HxCDD	0.0004	0.000	0.237	1.20	0.825	0.345	0.024	0.003	0.041	0.000	0.005	0.000
1234678-HpCDD	0.001	0.001	0.765	2.69	2.44	1.28	0.037	0.009	0.087	0.000	0.015	0.000
OTHER HpCDD	0.00001	0.000	0.005	0.021	0.017	0.007	0.000	0.000	0.001	0.000	0.000	0.000
OCDD	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TOTAL PCDD												
2378-TCDF	0.1	0.009	79.6	130	86.4	226	0.300	0.145	1.048	0.000	0.109	0.000
OTHER TCDF	0.001	0.002	1.72	5.56	4.91	6.29	0.125	0.019	0.258	0.000	0.016	0.000
12378-PCDF	0.1	0.017	61.8	93.0	99.3	299	0.355	0.148	0.893	0.003	0.228	0.001
23478-PCDF	0.1	0.050	41.3	118	88.9	222	0.935	0.278	2.511	0.004	0.328	0.004
OTHER PCDF	0.001	0.004	1.89	5.87	4.76	6.28	0.095	0.018	0.170	0.000	0.017	0.000
123478-HxCDF	0.01	0.028	11.4	18.1	19.0	39.6	0.323	0.083	0.669	0.001	0.074	0.001
123678-HxCDF	0.01	0.008	6.00	11.7	9.62	0.000	0.101	0.026	0.200	0.000	0.029	0.001
234678-HxCDF	0.01	0.011	3.98	11.6	9.19	19.7	0.196	0.045	0.438	0.000	0.048	0.001
123789-HxCDF	0.01	0.000	2.08	2.42	1.69	11.0	0.038	0.000	0.059	0.000	0.000	0.000
OTHER HxCDF	0.0001	0.000	0.184	0.439	0.365	0.135	0.006	0.001	0.011	0.000	0.001	0.000
1234678-HpCDF	0.001	0.009	1.65	2.65	3.01	3.20	0.071	0.025	0.166	0.000	0.013	0.000
1234789-HpCDF	0.001	0.001	1.64	2.02	1.78	3.84	0.012	0.005	0.017	0.000	0.004	0.000
OTHER HpCDF	0.00001	0.000	0.014	0.025	0.023	0.033	0.000	0.000	0.001	0.000	0.000	0.000
OCDF	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TOTAL PCDF												
TOTAL PCDD+PCDF	2378-TCDD TOXIC EQUIVALENT	0.153	249	552	435	912	4.43	1.06	7.85	0.016	1.31	0.000

[a] Not detected congeners are considered zero for calculating 2378-TCDD toxic equivalents.

[b] Aluminum sweat furnace.

[c] Motor burn-off oven.

TABLE 4-10. COMPARISON OF ASH AND SOIL TEF'S BY SITE

Site	Ash (TEF)	Soil (TEF)
Lake Salvage	912	1.51[a] 7.57[b]
Elgin	552 435	18.8
Alco Steel	249	119[c] 1.10[d]
Allied	7.85	1.73
Midwest	4.43	1.53
Midland	1.31	1.29
Pielet	1.06	0.074
Edelman	0.153	0.520
Westinghouse	0.016	N/A
Rock Island	0.009	N/A

N/A = Soil samples were not collected and analyzed for these sites.

[a]Collected from ash storage area.

[b]Collected from near incinerator.

[c]Collected in front of the primary and secondary chambers. Result is an average of duplicate analyses.

[d]Collected near the afterburner.

SEE REFERENCE SHEET

FOR SENSITIVE INFORMATION

SITE NAME: LAKE SALVAGE COMPANY

SITE NUMBER: ILD 076 875 285

LOCATION OF DOCUMENT: SEPARATE FILE, RED FOLDER